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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

MBA PROFESSIONAL REPORT

**Contractors and the Cost of War: Research into Economic and Cost-
Effectiveness Arguments**

**By: Neil J. Harris
December 2006**

**Advisors: David R. Henderson
Peter J. Coughlan**

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**CONTRACTORS AND THE COST OF WAR: RESEARCH INTO ECONOMIC
AND COST-EFFECTIVENESS ARGUMENTS**

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Submitted in partial fulfillment of the requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION

from the

**NAVAL POSTGRADUATE SCHOOL
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LIST OF ACRONYMS AND ABBREVIATIONS

CBO	Congressional Budget Office
DoD	Department of Defense
GAO	Government Accountability Office
GWOT	Global War on Terror
FAIR	Federal Activities Inventory Reform
KBR	Kellogg, Brown & Root Services
LOGCAP	Logistics Civil Augmentation Program
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OMB	Office of Management and Budget
PMC	Private Military Company
PMF	Private Military Firm
QDR	Quadrennial Defense Review
TCE	Transaction Costs Economics
UCMJ	Uniform Code of Military Justice

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I. INTRODUCTION

A. BACKGROUND

The issue of civilians accompanying troops on the battlefield raises unique considerations of economic and social policy. In the modern contingency environment, multi-million dollar contracts are awarded to provide a myriad of traditionally in-house services including logistics, security, and weapons system support. Historically, the driving argument for using private markets centered on their assumed cost effectiveness. Private entities offer efficiency incentives and cost savings that are maximized in free markets based upon the free market principles of competition and innovation. After all, in market economies, government provision of basic services like garbage collection and education has now come into question, and has increasingly been replaced with private provision, though still largely paid for from tax revenues.¹ Privatization within the Department of Defense, as it has been argued, has allowed military forces greater flexibility to focus on their core mission. Proponents also cite several advantages that contractors can offer. Some are technical experts that can perform tasks better than military personnel. In many cases, they can relieve the effects of a manpower or budgetary constraint on the military. In this regard, contractors represent a form of surge support. Equipping a large standing force is not only costly, but also takes a long time to train. Comparatively, a contractor's labor costs are cheaper since they require no permanent staff and can avoid high fixed costs. Private firms can also quickly reduce the size of their force when a job ends.

The fact that contractors have become so integrated with the active forces has not gone unnoticed, however. More recently, the terms "contractors on the battlefield" or "private warriors" have received a great deal of recent attention and, to some extent, a degree of notoriety. To many, the term evokes notions of inexperienced gangs of hired guns or modern day mercenaries. Recent allegations of pricing abuse by reconstruction giant Halliburton has attracted public and Congressional scrutiny. Furthermore, the

¹ Andrei Shleifer, "State Versus Private Ownership," *Journal of Economic Perspectives* 12 (Fall), 134.

widespread lack of regulation has also raised concern and criticism. Nonetheless, the changing nature of warfare has clearly allowed the PMC industry to thrive. Not only has the proportion of support functions has increased relative to combat troops, but the military has taken on more diverse tasks such as reconstruction efforts, technical support, and specialized training.

In the “fog of war,” many experts have questioned the contractor’s viability in frontline tasks. In the military context, poor service delivery can have serious repercussions on military capability. Traditional concerns include the domestic and international legal status of civilians in close proximity to combat; control and discipline of contractor personnel; and contractor security and force protection.² Several academic studies and papers have highlighted the growing trend—focusing on the legal and ethical ramifications relating to issues of chain of command, accountability, force protection, and mission effectiveness. Few studies, however, have focused on the basic industry economics or cost effectiveness. Peter Singer, a noted industry expert, asserts that “we often talk about it in terms of economic cost savings, but there are no proven economic cost savings. There is simply no comprehensive study that we can look at and say that it has proven to save us money.”³ To be sure, countless studies have shown that privatization *can* create cost savings within both private and public sectors. Yet contracting for services in a contingency environment is a sharp contrast when compared to contracting for laundry services or landscaping. In other words, one should not simply assume that privatization saves money.

Several of the key features within the industry provide a useful perspective on the industry from an economist’s point of view. Empirically, the Department of Defense is using the private market to supply an inherently public good. Privatization and outsourcing efforts are seen as vital means towards achieving cost savings. In addition to

² Richard Dunn, “Contractors in the 21st Century Combat Zone,” in *Acquisition Community Connection* [database on-line] (Ft. Belvoir, VA: Defense Acquisition University, April 2005); available from <https://acc.dau.mil/CommunityBrowser.aspx?Id=22084> (accessed October 2006).

³ PBS Frontline, “Private Warriors: Does Privatization Save Money?” [web-page] (PBS, June 2005); available from <http://www.pbs.org/wgbh/pages/frontline/shows/warriors/contractors> (accessed October 2006).

the cost-effectiveness debate, there are a myriad of other issues that exist. For example, Transaction Cost Economics (TCE) yields key insights on the issues of relationship-specific investments, asymmetric information, and contract uncertainty. Moreover, the competitiveness of these private markets is a precursor towards achieving cost savings and most would agree that such competition is crucial to the make or buy decision. After major contract awards, however, firms may be able to exercise a degree of market power. For major reconstruction efforts, companies such as Halliburton, its sizeable Kellogg Brown and Root subsidiary, MPRI, and Vinnell stand out as the only major contractors available to meet the government's specialized needs. In the wake of increased demand for private security services, however, there are simply too many firms to name. Likewise, countless other firms provide a myriad of services ranging from food service to weapons system support.

There remain other costs to privatization such as quality of force issues and the existence of layers of subcontracts which indicates some degree of inefficiency. The inherent costs are difficult to quantify, but should weigh heavily on the make or buy decision. Before policy-makers and commanders tailor specific policy, however, it is important to step back and consider how we reached this point. More specifically, has the increased use of privatization been capability driven—aimed at enhancing combat effectiveness? Or is it a case where active forces simply cannot meet the needs due to budgetary constraints? Since the end of the Cold War, privatization within DoD has proceeded apace. The fundamental question remains: Are current outsourcing initiatives a cost effective use of taxpayer funds? Most would certainly agree that no matter how much is spent on defense, it should be spent well.

B. PURPOSE

The purpose of this thesis is to first explore the rise and document the trends, and investigate the cost effectiveness aspects of the Private Military Industry. The research offers a different perspective on a growing trend within the military and will provide the reader greater insight to an often controversial and highly charged topic. The paper will first provide an enhanced understanding of the industry dynamics and highlight some of the major developments in the last decade. After revisiting the original reasons for

government outsourcing, an informed assessment can be made as to whether the government has been consistent with their original objectives or why their strategy has deviated. Next, many of the economic issues surrounding the employment of Private Military Contractors are examined. Of particular importance are the criteria for successful privatization, contracting considerations, and principal – agent considerations. In addition, the relevance of Transaction Costs Economics is highlighted. Of primary interest is an investigation into the cost-effectiveness debate. The economic rationale for privatization is made prior to addressing cost-effectiveness arguments. Citing specific contracts, an assessment is made as to the types of work best suited to meet the government's needs. Finally, the reader should gain some understanding as to not only if, but how cost savings will accrue to the government.

C. RESEARCH QUESTIONS

The ultimate purpose of this research is to address the private military industry, as it exists in the current contingency environment, from an economist's point of view. Key questions are as follows:

- How did this industry achieve such remarkable growth since the end of the Cold War?
 - Were the original reasons for outsourcing primarily based on budgetary constraints or capability constraints?
 - Are there any additional overlooked reasons that have allowed the PMC industry to grow?
- What are the dominant industry characteristics?
 - How are accurate contract objectives established in such a subjective environment?
 - What happens to competition before and after a contract is let? Is there evidence of market power?
- Has the increased use of PMCs led to *proven* cost savings to the DoD?
 - What are some examples of savings to the government *and* inefficient use of public dollars?
 - In cases where DoD has successfully utilized the private market, where does resulting saving materialize?

D. METHODOLOGY

The outsourcing of defense functions is treated as a public policy issue, and more specifically, a public procurement issue. Thus, the research treats the outsourcing of military functions as a question of resource allocation, given a budgetary constraint. Research is undertaken with an exploratory focus. The methodology for this research is to first examine the characteristics of the private military industry, as it pertains to contingency operations in Iraq and Afghanistan. Emphasis is placed on the historical precedent for outsourcing within the Department of Defense. After the current industry landscape is examined, a case for defense outsourcing is made. Economic criteria for effective privatization, based on both public and private viewpoints, are addressed. Transaction Costs Economics and agency theory are also used to address unique considerations within the current contingency environment. Subsequent research focuses on the cost-effectiveness argument. Specific research is devoted towards specific aspects of private contractors which justify contracting out. While the aim of the research is not to provide specific policy recommendations, it will allow the reader to understand the current scope in which contractors are currently utilized. In addition, it will provide a useful framework to weigh the cost advantages and disadvantages of active military forces versus contractors.

E. SCOPE

Although the growth of the industry has been global in scale, this report draws from contracting efforts within the Federal Government. Emphasis is placed on contractors involved in current contingency operations in Iraq and Afghanistan. The industry lacks financial transparency, making quantitative comparisons difficult. Several contracts, however, have proven accessible. For example, the Center for Public Integrity, a non-profit, non-partisan investigative agency has received a substantial amount of contracts through Freedom of Information Act (FOIA) requests. Within both government and academic communities, a substantial degree of research has been devoted towards the industry. The Government Accountability Office (GAO) and Congressional Budget Office have also devoted substantial resources aimed at several concerns. Additional literature reviewed includes DoD regulations, Naval Postgraduate School (NPS) theses,

scholarly essays, and books. For the purposes of this study, research will primarily draw from contractors operating in support of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).

F. ORGANIZATION

The project consists of five chapters. Chapter I provides a requisite overview and background with key terms and concepts defined. Chapter II and provides a background to the rise of the private military firm in DoD. Although employment of private military contractors is nothing new, emphasis is placed on post Cold-War outsourcing initiatives. Recent trends and events within the industry are also highlighted. Examples of current PMCs are provided, documenting the diverse range of services provided and the typical dollar amount and length of contracts. Section III outlines the economics of the private military industry, beginning with a discussion of PMCs in the context of public goods. The economics of privatization are also underscored. A discussion of Transactions Cost Economics and its relevance to the industry is provided. Principal-agent and moral hazard issues are also highlighted. Finally, the degree of competitiveness within the industry, a precursor towards cost savings, is also examined. Section IV focuses on the cost-effectiveness debate. First, a discussion of the contracting arrangements (value, time, specificity) is presented. Of particular note is a quantitative assessment on the cost of an active duty soldier versus a PMC employee. Subsequently, an assessment of cost savings is presented. Section V represents the culmination of the study and provides the conclusion and recommendations.

II. BACKGROUND: THE RISE OF THE PRIVATE MILITARY FIRM IN DOD

A. INTRODUCTION TO KEY TERMS AND CONCEPTS

1. Overview of the Private Military Industry

There remains some disagreement as to the exact scope of services a Private Military Company (PMC) provides, making the industry a bit hard to define. For example, Schreier and Caparini define PMCs as “private companies that specialize in military skills, including combat operations, strategic planning, intelligence collection, operational support, logistics, training, procurement and maintenance of arms and equipment.”⁴ Taken in its broadest context, therefore, this definition could encompass the entire defense industrial base to also include major defense contractors such as Boeing, Lockheed Martin, and Raytheon. After all, the production of the necessary means, or inputs, of war has long been left to the private market. Yet the specific term PMC has evolved over the past several years and now carries a distinction that they supply *personnel* with specialized skills, often including combat experience. Brookings Scholar Peter Singer, a noted industry expert and author of *Corporate Warriors: The Rise of the Privatized Military Industry*, provides an international analysis of the entire private military industry—ranging from small companies providing consulting services to those that offer front line combat services. He uses the term Private Military *Firm* (PMF) to describe “business providers of professional services intricately linked to warfare” and “corporate bodies that specialize in the provision of military skills, including combat operations, strategic planning, intelligence, risk assessment, operational support, training, and technical skills.”⁵ Thus, firms operating within the industry are best characterized by

⁴ Fred Schreier and Marina Caparini, “Privatising Security: Law, Practice, and Governance of Private Military and Security Companies,” [report on-line] *Geneva Centre for the Democratic Control of Armed Forces Occasional Papers*, no. 6 (March 2005): 2, available from <http://www.dcaf.ch/publications/> (accessed October 2006). Hereafter referred to as “Privatising Security.”

⁵ Peter Singer, *Corporate Warriors: The Rise of the Privatized Military Industry*, (Ithaca and London: Cornell University Press, 2003), 8. Hereafter referred to as *Corporate Warriors*.

the services provided and not the company in particular. These entities deliver a wide spectrum of military and security services, once generally assumed to be exclusively inside the public realm.

Although the U.S. is by far the largest buyer of private military services, the utilization of military contractors is global in scope and activity.⁶ For example, many active PMCs, such as Armorgroup or Vinnell, are part of multinational corporations. In addition, many countries are moving toward privatizing, or outsourcing, the inner workings of military forces—representing a fundamental change in the military organization as a whole. This has re-ignited a long-standing debate on what the scope and role of government should be. Much of the current controversy surrounding PMCs regards their use in other parts of the world. Several scholars have singled out the conflict in Sierra Leone, for example, as the most dramatic use of contractors, where now defunct companies Sandline International and Executive Outcomes provided direct military advice and mercenary troops in Africa. It would certainly be a mistake, however, to group all PMCs in this category. Rather, it is emphasized that the United States has very few of these “full-service” firms. Instead, the market for military support and private security firms is predominantly in the logistics support, private security, and reconstruction arenas. Estimates of contractor support to deployed forces have indicated they will exceed \$4.5 billion from fiscal years 2000 to 2006.⁷

Both Department of Defense (DoD) and non-DoD agencies may award contracts to support deployed forces. Joint Publication 4-0, *Doctrine for Logistic Support of Joint Operations*, classifies contracts into three broad categories—theater support, external support, and systems support:

- Theater support contracts are awarded by contracting agencies associated with regional combatant command for recurring services or for one time delivery of goods and services at the deployed location

⁶ Singer, *Corporate Warriors*, 9.

⁷ U.S. Government Accountability Office, *Military Operations: Contractors Provide Vital Services to Deployed Forces But Are Not Adequately Addressed in DoD Plans*. GAO-03-695 (Washington D.C., June 2003), 1, n1. Hereafter referred to as *Contractors Provide Vital Services to Deployed Forces*.

- External support contracts are awarded by commands that are external to the combatant command for services provided at deployed locations
- System contracts provide logistics support to maintain and operate weapons and other systems⁸

Deborah Avant, author of *The Market for Force*, also provides a more detailed description of the industry, further broken out into five sectors: military advice and training, operational support, logistics support, site/personal security, and crime prevention/intelligence.⁹ Several insights are noted regarding industry structure. First, the site and personal security sector has the largest number of companies involved. Specifically, worldwide demand for security services after the September 11, 2001 terrorist attacks has skyrocketed. As the insurgency in Iraq grew more violent, government agencies and reconstruction contractors also came to rely on the specialized security services. At the same time, firms in the industry tend to represent smaller, niche players. In contrast, logistics support and military advice and training have the fewest players indicating economies of scale and/or higher barriers to entry. Some tasks, such as rebuilding infrastructure or providing logistical support require substantial resources and capital investment in order to win such contracts. Secondly, there appears to be considerable overlap between companies, indicating that some firms have diversified into more than one area. Singer notes that recent industry consolidation centers on brand marketing and sub-specialization that are requisite factors to competition on the global market and increase market share.¹⁰ As it pertains to the market within the United States, the military support sector is not only the largest in scope and revenue, but also the most varied in responsibilities.

2. Privatizing, Outsourcing, and Competitive Sourcing

Although the terms outsourcing and privatization are often used interchangeably, notable differences do exist and are clarified for the purposes of this analysis. First, outsourcing is the transfer of a support function from a traditionally in-house organization

⁸ U.S. Government Accountability Office, *Contractors Provide Vital Services to Deployed Forces*, 5.

⁹ See Deborah Avant, *The Market for Force: The Consequences of Privatizing Security* (Cambridge, UK and New York: Cambridge University Press, 2005), 10. Hereafter referred to as *The Market for Force*.

¹⁰ Singer, *Corporate Warriors*, 83.

to an outside service provider. The primary goal is to provide the same function with greater quality at less cost. Thus, the workload shifts but no government assets are transferred to the private sector. Most notably, the vendor retains a degree of flexibility and is free to utilize new technologies and business practices to improve service delivery and/or reduce support costs. Of particular distinction is that the government retains responsibility for not only funding, but the standard of service as well. In addition, Gansler notes a distinction between the terms “outsourcing” and “contracting.” Typically, firms use contractors when they need specialized services over a shorter time horizon. Outsourcing agreements, however, are typically longer term and measurement of performance is through assessment of some type of service level agreement, not an assessment of individual tasks.¹¹ Proponents cite benefits such as improved service at a lower cost, increased efficiency, greater flexibility, and more rapid responsiveness to changing requirements. At the same time, the contracting process can be complex, time consuming and costly.¹² In contrast, privatization is a subset of outsourcing and occurs when the government ceases to provide certain goods or services. In turn, the existing public entity is transferred to private ownership and the level of the government’s involvement is fundamentally altered. Whereas outsourcing is the *transfer* of workload, privatization represents a complete transfer of ownership rights from the public to the private sector.

The Federal Activities Inventory Reform (FAIR) Act of 1998 required federal agencies to review, inventory, and publicly list those functions that are not inherently governmental and that could therefore be performed by commercial activities. During the same time, FAIR statutorily sanctioned competition between federal agencies and the private sector. As a result, a new term, called “competitive sourcing,” emerged. Privatization and outsourcing implicitly assume that private sector delivery is always less costly and is always of an equal or better quality than public sector service delivery. Public versus private competition, or competitive sourcing, makes no such judgment.

¹¹ Jacques Gansler, “Moving Towards a Market Based Government: The Changing Role of Government as a Provider,” [report on-line] (IBM Center for the Business of Government, June 2003): 13, available from http://www.businessofgovernment.org/pdfs/Gansler_Report.pdf (accessed October 2006).

¹² *Ibid.*, 23.

Rather, competitive sourcing implies competition for work between the private and public sector. A summary of these relevant sourcing options is shown in Table 1:

Table 1. Summary of Sourcing Options

Sourcing Approach	Definition
Outsourcing	Organizational activities are contracted out to vendors or suppliers who specialize in these activities, usually in a competitive fashion.
Competitive Sourcing	Current public providers and private providers compete for the service or function to be provided.
Privatization	Current government capital equipment, facilities, and workers are moved into the private sector—either competitively or on a sole-source basis.

Source: from Gansler, “Moving Towards a Market Based Government,” 10.

With respect to current contingency operations in Iraq and Afghanistan, contractors now fulfill a variety of differing roles including logistics support, security, military training, and maintenance of weapons systems. Most contracts are essentially a form of contracting-out for services, technically a subset of outsourcing. The overriding consideration is that they, like other contracting-out activities, receive their maximum benefits—in performance improvements and cost reductions—through the presence of competition; and they can be acquired and terminated as the services are needed (rather than hired as permanent government employees—military or civilian). The economics of privatization activities are more formally explained in Chapter 3.

B. PRIVITIZATION AND OUTSOURCING AFTER THE COLD WAR

1. A Historical Perspective

The U.S. government has long recognized the potential of cost savings through the private sector. Within the executive agency, Office of Management and Budget (OMB) Circular Number A-76 outlines when commercial activities performed by the government can instead be performed under contract for the Government by private

companies. The circular mandates that the Government obtain commercially available goods and services from the private sector when it makes economic sense to do so. These functions, or commercial activities, are the only functions eligible to be performed under contract. The policy is viewed by many as a catalyst for competition, increased efficiencies, and technological innovation. If an activity can be performed through contracting or government in-house personnel, an A-76 study is completed to determine the most economical means of production. Though originally established in 1966, it has seen several revisions. Current policy is to allow the private sector to compete against the government employees for certain functions. Grasso notes that the policy rests on key assumptions:

- The federal government should not compete against its citizens but rely on the commercial sector to supply products and services needed by the government
- The government can conduct cost comparison studies to determine who best to do the work through a process of managed competitions
- Market forces can determine the most effective and cost-efficient methods to operate functions in both government and commercial sectors; and
- The nature of competition within the marketplace can be self-managed and not require government oversight¹³

With particular relevance to DoD, it has also been held that certain core functions remain in-house. As outlined in the circular, these “inherently governmental” functions are “so intimately related to the public interest as to mandate performance by government employees.”¹⁴ These functions include those activities that require either the exercise of discretion in applying government authority or the making of value judgments in making decisions for the Government.”¹⁵ Inherently governmental functions are further categorized by into (1) the exercise of sovereign government authority or (2) the establishment of procedures and processes related to the oversight of monetary

¹³ Valerie Bailey Grasso, *Defense Outsourcing: The OMB Circular A-76 Policy* [report on-line] (Congressional Research Service, June 2005): 4, available from <http://www.fas.org/sgp/crs/natsec/RL30392.pdf> (accessed October 2006).

¹⁴ U.S. Office of Management of Budget, *Circular No. A-76* [web-page] (Washington, D.C.: 1999); available from <http://www.whitehouse.gov/omb/circulars/a076/a076.html> (accessed October 2006).

¹⁵ *Ibid.*

transactions or entitlements. Also underscored is the direction of the national defense; management and direction of the Armed Services; activities performed exclusively by military personnel who are subject to deployment in a combat, and combat support or combat service support roles.¹⁶

Within the federal government, initiatives aimed at cost savings through using private market mechanisms have resonated through several administrations, Republican and Democrat alike. Ronald Reagan emphasized the view that big government was inefficient, wasteful, and unmanageable. Implementing market-based solutions within government were themes also resonated by Presidents Carter and H.W. Bush, though not as pronounced as Reagan's.¹⁷ President Clinton's National Performance Review articulated the idea that government should focus its attention on those activities which it "should and could do best, and then put incentives in place to ensure optimum results."¹⁸ As outlined in the *Fiscal Year 2002 President's Management Agenda*, President George W. Bush identified competitive outsourcing as one of five management initiatives aimed at enhancing government effectiveness. More specifically, the administration has looked at simplifying and improving the policies and procedures to a sourcing process that was widely viewed as cumbersome, complicated, and protracted. As a result, Circular A-76 was recently modified to expedite the competition process and create a more streamlined competition process.

While the U.S. government has a long history of looking to the market for military services, DoD has been at the forefront of A-76 policy in recent years. After several years of limited use, the Deputy Secretary of Defense renewed emphasis in the program in 1995 when he directed services "to make outsourcing of support activities a priority in an effort to reduce operating costs and free up funds to meet other priority needs."¹⁹ Subsequently, the effort was incorporated into the 1997's Defense Reform

¹⁶ U.S. Office of Management of Budget, *Circular No. A-76*.

¹⁷ John Donahue, *The Privatization Decision: Public Ends, Private Means* (New York: Basic Books, 1989), 3. Hereafter referred to as *The Privatization Decision*.

¹⁸ Grasso, *Defense Outsourcing: The OMB Circular A-76 Policy*, 1.

¹⁹ U.S. Government Accountability Office, *Sourcing and Acquisition: Challenges Facing the Department of Defense*. GAO-03-574T (Washington, D.C., March 2003), 6.

Initiative and was termed competitive sourcing (in recognition that either the public or private sector could win the competitions). Arguably, current changes to the policy under the current Administration will also have far reaching repercussions. In 2001, President Bush emphasized, “We should not be afraid of competition, innovation and choice. Our government must be open to the discipline of competition.”²⁰

Although outsourcing is certainly not a new phenomenon, DoD’s current efforts are unmatched in size and scope. The department has the largest program of market-based sourcing and has estimated savings of over \$6 billion from A-76 competitions between 2000 and 2003 involving nearly 73,000 positions.²¹ Continued demands on the federal budget have created a renewed calling for greater emphasis on cost savings through greater efficiency and less red tape. Persistent budget deficits, fiscal demands of the Global War on Terror (GWOT) and impending social security and Medicare shortfalls have placed unprecedented demands for DoD’s discretionary dollars. Outsourcing and privatization are seen as key aspects toward achieving cost savings. Furthermore, the services are desperately trying to recapitalize, or modernize, their aging equipment—languishing from the so-called “Procurement Holiday” that followed the Cold War. As a result, services are now faced with much more difficult decisions as to the allocation of personnel, equipment, and services. The Air Force, for example, heavily utilizes the private market. Recently, it has announced it wants to trim nearly 40,000 active duty positions by FY11, citing near term shortfalls in operations and investment accounts. At the same time, contracting actions have been expanded to provide a wider range of services—from privatized base housing and computer network support to operation of the Predator Unmanned Aerial Vehicle and maintenance of the F-117 stealth fighter. Since 1992, the Army has also awarded multi-billion dollar contracts for its logistics functions and engineering support during contingency operations through a contract known as Logistics Civil Augmentation Program (LOGCAP). The scope of

²⁰ U.S. President, *President’s Management Agenda* (2001); quoted in Gansler, “Moving Towards a Market Based Government,” 8.

²¹ Executive Office of the President. Office of Management and Budget, *Competitive Sourcing: Conducting Public-Private Competition in a Reasoned and Responsible Manner* (Washington, D.C., July 2003), 2.

current LOGCAP contracting includes services such as base-camp construction, food, fuel, housing, and supplies in Iraq, Afghanistan, and elsewhere in Southwest Asia.

To emphasize, the military's use of contractors during a contingency is not a new phenomenon. Hiring contractors to support armies can be traced to America's revolutionary battles. In World War II, for example, merchant marines were essentially key contractor personnel—not unlike the current truck drivers supplying fuel and food to troops in Iraq. Zamparelli also notes that 80,000 contractors supported 359,000 troops in the Vietnam Conflict.²² It was during Vietnam, however, that contractor roles began to fundamentally change. As equipment became more advanced, the military relied increasingly on contractors as technical specialists working side by side with military personnel.²³ In the 1970s, some observers became concerned about the military's reliance on contractor support. A Defense Science Board report in 1982 noted that although contractor employees generally performed well during crises and combat, there were no formal mechanisms to ensure their continued performance.²⁴ In the last several years, the PMCs' role has evolved even further. Specifically, the nature of their involvement has continued to move closer to the battlefield, the scale of their use has increased, and the number of companies taking part has swelled.²⁵ In the Balkans, for example, the Government Accountability Office (GAO) reported an Army uniform presence of 6,000 troops supported by 5,900 contractors, nearly a 1:1 ratio.²⁶

2. Size and Structure of Military Forces

As a percentage of total federal spending, DoD's share steadily declined from 24.3% in 1989 to 15.3% in 1998, rising back to 19.5% in 2005. Over the same period, DoD's share of the discretionary budget remained relatively constant at approximately

²² Steven Zamparelli, "Contractors on the Battlefield: What Have We Signed Up For," *Air Force Journal of Logistics* XXIII (3): 12

²³ Schreier and Caparini, "Privatising Security," 18.

²⁴ U.S. Department of Defense, Office of Inspector General, *Audit Report on Civilian Contractor Overseas Support During Hostilities*; quoted in John Campbell, "Outsourcing and the Global War on Terror" (Monograph, U.S. Army Command and General Staff College, 2005), 17.

²⁵ "Business: War and Piecework," *The Economist*, 10 July 1999, 67.

²⁶ Stephen Blizzard, "Increasing Reliance on Contractors on the Battlefield: How Do We Keep from Crossing the Line," *Air Force Journal of Logistics* XXVIII (1): 6.

48% to 50%. Large and growing structural deficits, primarily due to demographic trends and healthcare costs, also lie on the horizon. Since the end of the Cold War in 1991, DoD has downsized its personnel and force structure considerably. From 1989 to 1999, active duty end strength fell steadily from 2.1 million to 1.4 million. According to Defense Manpower Data Center analysis, today's active force is approximately 30.4 percent smaller than it was in 1990.²⁷ Similarly, the Guard and Reserves have had their numbers reduced by over 40 percent while performing 13 times more man-days per year than previously accomplished.²⁸

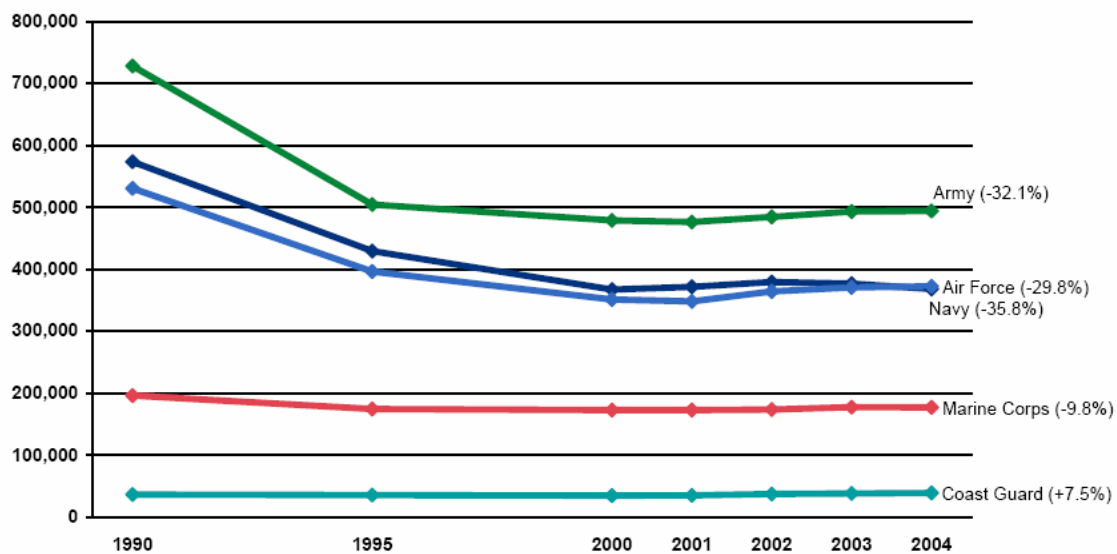


Figure 1. DoD Active Duty and Coast Guard Trends, 1990 - 2004

Source: From Defense Manpower Data Center, "2004 Demographics Report."

In the last 15 years, however, the services' operations and support costs have not been proportionately reduced—anticipation of an extended peace dividend was indeed short lived. Many would agree that there has been a disproportionate growth in the so-called "tooth to tail" ratio on the battlefield; that is, a marked escalation in the number of

²⁷ Defense Manpower Data Center, "2004 Demographics Report" in *Military Manpower Resources* [database on-line] (Department of Defense, 2004); available from <http://www.nps.edu/Library/Research/SubjectGuides>; p. 4.

²⁸ Blizzard, "Increasing Reliance on Contractors on the Battlefield," 7.

support functions relative to actual combat power. Moreover, consumption rates for fuel, ammunition, and water have increased dramatically. Echevarria notes that “a division consumes as much today as a field army during World War II.”²⁹ Figure 2 shows the trend of DoD’s major accounts from Fiscal Year 1985 to 2006.

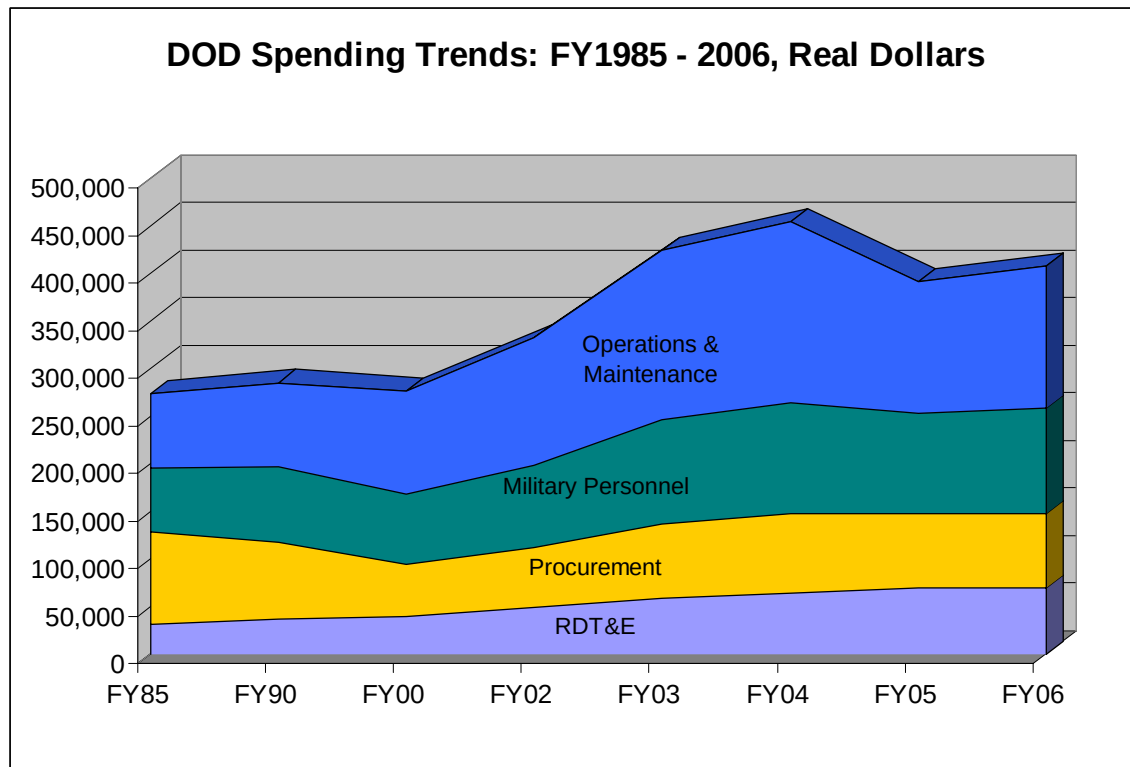


Figure 2. DoD Spending Trends, FY 1985 – 2006

Source: Author created from Office of Executive Secretary, “Annual Report to the President and Congress,” in *Annual Defense Reports* [web-page] (Department of Defense, 2005): A-1, available from <http://www.dod.mil/execsec/adr2005.pdf> (accessed October 2006).

Even more striking is the fact that although end strength is nearly a third smaller than it was in 1990, personnel costs have *increased* as a result of heftier salaries and benefits. In addition, expectations that military requirements, or “ops-tempo,” would taper were not

²⁹ Antulio Echevarria, “Dynamic Inter-Dimensionality: A Revolution in Military Theory,” *Joint Forces Quarterly* (Spring 1997): 32.

realized.³⁰ Conflicts in Bosnia, the Persian Gulf War, and Somalia, along with the threat of nuclear proliferation, made it clear that the U.S. would continue to field a large peacetime force. With respect to the current GWOT, members of Congress and military analysts have suggested the military is undermanned to meet the requirements in the post-Cold War era, and specifically, the GWOT.

C. CURRENT TRENDS

1. Contracting for Service and Support Functions

Government agencies are relying more on services to accomplish their missions. In recent years, DoD has spent more on services than on supplies, equipment and goods, despite the high cost of weapon systems and other large military items. Within DoD, acquisition of services has continued to increase in scope and volume. Between FY 1999 and FY 2003, spending on services increased by 66%, and in FY 2003, the DoD spent over \$118 billion, approximately 57% of DoD's total procurement dollars on services.³¹ These services belong to a very broad set of activities ranging from janitorial services to space launch operations. Major categories of services include professional, administrative, and management support; construction, repair, and maintenance of facilities and equipment; information technology; research and development; and medical care.³² Apte et al. note several inherent characteristics that make contracting for services difficult. For example, "intangibility of service outcomes" makes it difficult to clearly describe and quantify services, while "intangibility of outputs" makes it difficult to define and measure quality.³³ These inherent complexities have necessitated a change in the way DoD contracts for services. As we shall see in the case of a contingency environment, service contracts can be complex and involve multi-stage processes and

³⁰ Edward Bruner, *Military Forces: What is the Appropriate Size for the United States*, [report on-line] (Congressional Research Service, May 2004): 1, available from <http://www.fas.org/man/crs/RS21754.pdf> (accessed October 2006).

³¹ U.S. Government Accountability Office, *Contract Management: Opportunities to Improve Surveillance on Department of Defense Contracts*. GAO-05-274. (Washington, D.C., March 2005); quoted in Uday Apte and others, "Managing the Services Supply Chain in the Department of Defense: Opportunities and Challenges," in *Proceedings from the Third Annual Acquisition Research Symposium*, (Monterey, CA: Naval Postgraduate School, 2006), 373.

³² Uday Apte and others, "Managing the Services Supply Chain in the Department of Defense," 374.

³³ *Ibid.*, 377.

cover several years. Thus, it is challenging to write contracts that are flexible enough to cover all relevant and possible scenarios. If such contracts cannot be well defined, it may be preferable to deliver certain services using internal resources as opposed to outsourcing them.

2. Defense Transformation

The ongoing conflicts in Iraq and Afghanistan continue to provide insights about the increasingly complex and changing nature of war. For now, it appears that the Cold War paradigm of large standing armies has been replaced in favor of equipping a smaller, more agile, and more lethal force. To meet the new demands of the GWOT, the Pentagon has embarked on a comprehensive transformation effort—aimed at “creating and sustaining a competitive advantage in warfare.”³⁴ Under the leadership of Donald Rumsfeld, an unrelenting focus on enhanced capabilities, increased efficiency, and less waste has resonated throughout DoD. Rumsfeld, also a staunch supporter of market-based sourcing, commented:

This is not the task of any one department or country. We must all begin to develop new approaches. And we must increasingly think of this budget as but one component of a multi-faceted strategy -- combined with the resources allocated to other departments of the U.S. Government, plus the private sector. The old, rigid divisions between war and diplomacy, conflict and reconstruction -- the departmental roles that go with them and the division between public and private -- no longer serve us well.³⁵

As we look to the current privatization and outsourcing efforts in the post-Cold War world, the scale of the private military support industry has grown immensely. From 1994 to 2002 the DoD entered into an estimated 3,000 contracts with U.S.-based firms, estimated at a contract value of \$300 billion.³⁶ Proponents argue that broader

³⁴ Department of Defense. Office of Transformation, “Transformation Overview,” [web-page] (Department of Defense, 2006); available from http://www.defenselink.mil/transformation/about_transformation.html (accessed October 2006).

³⁵ Testimony of Donald Rumsfeld on the Fiscal Year 2006 Budget to House Armed Services Committee; available from [http://www.house.gov/hasc/testimony/109th Congress/RumsfeldBudgetTestimony2-16-05.pdf](http://www.house.gov/hasc/testimony/109th%20Congress/RumsfeldBudgetTestimony2-16-05.pdf) (accessed October 2006).

³⁶ International Consortium of Investigative Journalists, “Making a Killing: The Business of War,” (Center for Public Integrity, 2002); quoted in Singer, *Private Warriors*, 15.

employment of contractors creates a vehicle for cost savings, flexibility, and innovation. More importantly, it enables the military to do what it does best—fight and win our nation’s wars. In the most recent Quadrennial Defense Review (QDR), the importance of contractors to the “Total Force Concept” is now explicitly underscored. In short, DoD policy directs that “performance of commercial activities by contractors, including contingency contractors and any proposed contractor logistic support arrangements, shall be included in operational plans and orders.”³⁷ Despite the fact that DoD uses contractors as part of the total force mix and recognizes the need to continue essential contractor services during crises, it has not included them in operational and strategic planning.³⁸

3. Current Operations in Iraq and Afghanistan

Rebuilding Iraq constitutes the largest U.S. assistance program since World War II. Since 2001, Congress has appropriated nearly \$430 billion to DoD and other government agencies for operations activities in direct support of GWOT. In this analysis, current operations in Iraq and Afghanistan are viewed within the purview of GWOT activities. According to GAO estimates, DoD has received about \$386 billion to fund military operations, while the remaining \$44 billion was appropriated to other U.S. agencies (primarily U.S. Agency for International Development and U.S. State Department) for reconstruction and stabilization efforts.³⁹ The funding has been provided through both regular and supplemental appropriations. In the past decade, supplemental appropriations have also provided an increasing share of DoD’s budget authority, specifically for Operations and Maintenance and Personnel accounts. After 2002, the majority of the supplemental appropriations were for funding the wars in Iraq and Afghanistan, and the war on terrorism. By 2005, supplemental appropriations

³⁷ Department of Defense, *Quadrennial Defense Review*, [report on-line] (Department of Defense, 2006); available from <http://www.defenselink.mil/qdr/> (accessed October 2006).

³⁸ DoD Instruction 3020.37 outlines that contractor services are considered essential when (1) DoD components may not have military or civilian employees to perform these services immediately or (2) the effectiveness of defense systems or operations may be seriously impaired and interruption is unacceptable when those services are not available immediately.

³⁹ U.S. Government Accountability Office, *Global War on Terrorism: Observations on Funding, Costs, and Future Commitments*. GAO-06-885T (Washington, D.C., July 18, 2006), 2.

reached about 6% of budget authority—they had remained at less than 1% for most of the 1990s.⁴⁰ While traditional supplemental spending was once reserved exclusively for national emergencies, such as the September 11, 2001 terrorist attacks and Hurricane Katrina, military services have become much more dependent on supplemental appropriations for wartime funding of operations and personnel costs. In turn, this raises key issues about oversight and accountability for funds, especially when contracting in a contingency environment. Considering the scale of operations in the last three years, it is clear that the GWOT is a much different type of conflict. Although President Bush has not given a timetable for withdrawing troops from Iraq, it is likely that reconstruction efforts will continue for the next several years. In turn, the importance and criticisms of contractors will continue to be underscored.

After the combat phase of the 2003 Iraq War was won with fewer divisions than many analysts expected, it was not long after that the occupation phase placed substantial pressure on the military's manpower resources. As the first anniversary of combat approached, DoD was engaged in the "largest troop rotation since World War II."⁴¹ Shortly thereafter, all active Army divisions became involved. Reserve Components and Marine Corps units soon became extended, or committed for over one year. Many personnel came under stop-loss orders that kept them from leaving service. According to Burns, no Army division was available as a strategic reserve as air and naval forces were shifted to cover key contingencies.⁴² In January 2004, DoD acknowledged the problem by temporarily adding 30,000 to the authorized active duty end strength of the Army.⁴³ Currently, DoD reported about 132,000 U.S. military personnel are deployed to Iraq and

⁴⁰ Thomas Hungerford, *Supplemental Appropriations: Trends and Budgetary Impacts Since 1981*, [report on-line] (Congressional Research Service, November 2005): 2, available from http://www.opencrs.com/rpts/RL33134_20051102.pdf (accessed October 2006).

⁴¹ Bruner, *Military Forces: What is the Appropriate Size for the United States*, 2.

⁴² Robert Burns, "U.S. Plans Extra Air Power on Asia While Ground Forces Focus on Iraq," *Associated Press*, 19 January 2004; qtd in Bruner, *Military Forces: What is the Appropriate Size for the United States*, 2.

⁴³ See Bruner, *Military Forces: What is the Appropriate Size for the United States*, 2. Note that in the context of the legislation, "temporary" was defined as the duration of the current emergency situation in Iraq or four years to accomplish planned force rotation changes for the Army.

about 15,000 deployed to Afghanistan.⁴⁴ Actively supporting these troops, however, are thousands of private contractors, often working behind the scenes.

D. EXAMPLES OF CURRENT PMCS

The conflict in Iraq has focused world attention on the role of PMCs to new heights and has also proved to be a very demanding testbed for them. Though not noticed as much as their post-war contributions, PMCs were also prominent throughout the war itself. In 2005, PBS aired an episode of its popular documentary *Frontline* series which focused on the employment of private military contractors inside Iraq. At the time, current estimates of contractors inside the Iraq theater of operations included 50,000 support and logistics contractors, 20,000 non-Iraqi security contractors, 15,000 Iraqi security contractors, and 40,000 – 70,000 reconstruction contractors.⁴⁵ Civilian military contractors in Iraq currently provide an array of traditionally in-house services including:

- Guarding officials, military installations, and supply convoys
- Training local troops and police forces
- Providing interrogators, translators, and transcribers
- Maintaining and repairing vehicles and aircraft
- Running logistics operations and supervising supply lines
- Driving supply trucks that carry fuel and food
- Providing warehousing and storage services
- Maintenance of computer systems
- Preparing and serving meals for soldiers
- Cleaning military facilities
- Building housing

The Army's outsourcing of their logistics functions provides an illustrative example. Originally conceived in 1985, LOGCAP is the Army's comprehensive logistics program during contingency operations. LOGCAP's original purpose was twofold: (1) preplan for the use of contractor support in contingencies or crises, and (2) take

⁴⁴ U.S. Government Accountability Office, *Global War on Terror: Observations on Funding, Costs, and Future Commitments*, 5.

⁴⁵ PBS Frontline, "Private Warriors: Frequently Asked Questions," [web-page] (PBS, 21 June 2005); available from <http://www.pbs.org/wgbh/pages/frontline/shows/warriors/faqs> (accessed October 2006).

advantage of existing civilian resources both in the United States and overseas to augment active and reserve forces.⁴⁶ The program has since evolved into a comprehensive planning and services contract. Arguably, LOGCAP is the military's lifeline in the current theater of operations. The Army awarded the current LOGCAP contract (LOGCAP III) to Halliburton subsidiary Kellogg, Brown & Root (KBR) in December 2001.⁴⁷ KBR, with roots in WWII, was vital in infrastructure building for the U.S. Army during the Vietnam War. Currently, the Army uses LOGCAP to support military operations and reconstruction efforts in Iraq. From 2001 – 2005, the estimated cost of the various task orders under the contract exceeded \$15 billion. In December 2004, LOGCAP employed 44,000 people (including a large proportion of foreign nationals and subcontractors).⁴⁸ In addition to traditional logistics functions, KBR has also played a key role in building military bases and providing a range of services. Yet LOGCAP is only one example. Countless other functions are currently fulfilled by private contractors. Service contracts include communication services, interpreters, base operations services, weapons systems maintenance, gate and perimeter security, intelligence analysis, and oversight over other contractors.⁴⁹ Contractors are also tasked to maintain mission-critical computer systems and networks for the Combined Air Operations Center, a command-and-control facility where all air operations are coordinated. The Air Force also relied on contractors to support its new, high-tech Predator unmanned aerial vehicles.

⁴⁶ U.S. Government Accountability Office, *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program*. GAO/NSIAD-97-63. (Washington, D.C., 1997), 2.

⁴⁷ See Donald Trautner, "A Personal Account and Perspective of the U.S. Army Logistics Civil Augmentation Program," [web-page] (U.S. Army Logistics Civil Augmentation Program, 2004); available from <http://www.amc.army.mil/LOGCAP/>. Note that on September 11, 2001, the LOGCAP re-competition was already in progress. Significant changes were made to the contract, and the definition of "contingency" was changed to expand the application of LOGCAP to a more direct role with regard to military force involvement.

⁴⁸ U.S. Congress. Congressional Budget Office, *Logistics Support for Deployed Military Forces* (Washington, D.C., 2005); 4.

⁴⁹ U.S. Government Accountability Office, *Military Operations: Contractors Provide Vital Services to Deployed Forces but Are Not Adequately Addressed in DoD Plans*. GAO-03-695. (Washington, D.C., 2003); 7.

Thus, it is useful to revisit the term “inherently governmental.” It is apparent that the distinction is becoming increasingly blurred after looking at the numerous types of roles contractors fulfill. Functions such as aircraft and munitions maintenance, communications, weapons calibration, and weapons system software maintenance are now prime candidates for privatization. Furthermore, the Geneva Convention has outlined the specific roles of combatants and noncombatants. Military personnel are classified as combatants and can be relied upon to assist and augment the fighting force, as well as to provide self-protection and defend equipment and terrain. Contractor personnel, on the other hand, currently are classified as noncombatants and as such can carry a weapon only for self-protection, and then only with the express approval of the theater commander. In combat, the distinction becomes even less clear. For example, contractors who provide logistics support in theater or who operate the Air Force’s revolutionary Predator unmanned aerial vehicle are vital to force effectiveness. Fredland points out, “they are no less a part of a military operation than those who fire the weapons.”⁵⁰

The list of players in the PMC industry is as diverse as the range of services they offer. Several major contractors have become well known. In the United States, well known companies such as Halliburton, Blackwater, Erinys, and Triple Canopy have prospered in this once niche market providing everything from logistics support, security, maintenance of weapons systems, and training. Furthermore, all signs point towards sustained long-term growth in the industry. As weapons and equipment become more complex and challenging to maintain and operate, there is a greater willingness to rely on civilian contractors who can provide services ranging from monitoring advanced weapon systems to rendering technical assistance and logistical support. No longer restricted solely to acquisition and logistical functions, contractors will continue to accompany the military into war zones and into battle.

⁵⁰ Eric Fredland, “Outsourcing Military Force: A Transactions Cost Perspective on the Role of Military Companies,” *Defence and Peace Economics* 15 (3): 208. Hereafter referred to as “Outsourcing Military Force.”

Much of the recent media attention has been focused on the multi-billion dollar (and growing) private security industry. Fueled by the instabilities in the region and the postwar construction boom, the demand for private security has intensified. U.S. civilian government agencies and reconstruction contractors have had to contract with private security companies since it is not within the military's mission to provide security to non military organizations. Rather, U.S. Forces in Iraq provide security to contractors and DoD civilians who support military operations.⁵¹ In reviewing several reconstruction contracts, GAO recently found that the cost to obtain security providers and security-related equipment can account for in excess of 15 percent of total contract costs. Avant notes that the industry is quite diverse as evidenced by the size and age of the companies.⁵² For example, major players include American companies such as DynCorp, Vinnell (a Northrup-Grumman subsidiary), MPRI (an L-3 Communications subsidiary), and Kroll. Blackwater USA, a well-known private security firm with contracts to guard U.S. State Department officials, drew attention to the entire PMC industry after four of its employees were attacked and killed in Fallujah, Iraq in March of 2004. In April 2005, six more of its employees were killed subsequent to their helicopter being shot down. Both events were highly publicized and drew additional concerns from Congress and the public as to the magnitude and the extent to which contractors were utilized. DynCorp fills a key role in the Iraqi police training program, as well as providing maintenance and technical support. In addition, Vinnell, MPRI, and Nour USA have been involved in training and equipping the new Iraqi army. Expenditures on those tasks could reach as high as \$2 billion.⁵³ KBR currently has over 24,000 contractors in Iraq working on a multitude of projects ranging from repairing oil wells to handling mail, building military bases, and operating dining facilities for military forces.

⁵¹ U.S. Government Accountability Office, *Rebuilding Iraq: Actions Needed to Improve the Use of Private Security Providers*. GAO-05-737 (Washington, D.C., 2005); 10.

⁵² Deborah Avant, "Private Military Companies and the Future of War," [report on-line] (Foreign Policy Research Institute, April 2006); available from <http://www.fpri.org/enotes/200604.military.avant.privatemilitarycompanies.html> (accessed October 2006).

⁵³ PBS Frontline, "Private Warriors: Who Are the Contractors," [web-page] (PBS, 21 June 2005); available from <http://www.pbs.org/wgbh/pages/frontline/shows/warriors/contractors/companies.html> (accessed October 2006).

Some companies, such as Titan Corp and CACI International, have made substantial revenues furnishing translators and linguists to the Army.⁵⁴

E. SUMMARY

Several factors including post-Cold War reductions in the size of military forces, increases in the operations and missions undertaken by the military, and increased sophistication and complexity of weapons systems attributed to the dramatic rise in contractor personnel supporting contingency operations. In the wake of DoD's continued emphasis on gaining greater efficiencies through cost savings, the private military industry has grown substantially. Currently, contractor personnel carry out key roles which are vital to military capabilities. At the same time, the expanding roles filled by contractors have created a gray area with regard to the term "inherently governmental." Citing DoD's aggressive use of OMB Circular A-76, it is clear that a primary objective of contracting has been centered on cost savings. Cuts in military spending, competition between funding modernization and other programs, and a steadily declining military infrastructure have led Congress to order DoD to develop way of cutting costs without cutting services, and doing more with less.

Aside from historical OMB and Congressional policy, however, the current use of contractors in Iraq and Afghanistan is primarily aimed at providing the military with expanded capabilities. The U.S. government has spent billions of dollars to achieve political, security, and economic goals in Iraq and contractors are integral to those objectives. Between 2003 and 2006, over \$300 billion has been allocated to stabilization and reconstruction efforts in Iraq. The use of PMCs has been a defining aspect of this effort. It is a complex undertaking, in an uncertain security environment, and under significant time constraints. Simply put, the military is not equipped or trained for many of these specialized tasks. As these service-related contracts have comprised a larger part of the defense budget, DoD has started to recognize the inherent difficulty in ensuring contract performance, especially with respect to performance and price. In this regard,

⁵⁴ Campbell, "Outsourcing and the Global War on Terror," 82.

economics can offer crucial insights about current privatization and outsourcing efforts. The economics of privatization is underscored in the next section, as are several other important considerations.

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III. THE ECONOMICS OF PRIVATIZATION AND OUTSOURCING

A. OVERVIEW

Throughout the 1990s, privatization and outsourcing efforts became common practices within both public institutions and private corporations. On the heels of the information revolution, large corporations have outsourced business functions such as customer service, document management and financial services. Within government, outsourcing is seen as a potential solution to improve service delivery and cut costs. Singer notes that a so-called “privatization revolution” went hand in hand with globalization—both trends embraced the idea that comparative advantage and competition maximize efficiency and effectiveness.⁵⁵

As we have seen, several reforms have been aimed at improving the efficiency of the government and generating cost savings. From DoD’s perspective, successful privatization and outsourcing are critical towards equipping, modernizing, and transforming the force to meet the challenges of the GWOT. Countless functions within DoD, like grounds maintenance, computer and network support, dining facilities, and base security, are now performed by thriving competitive markets.

This section of the thesis highlights several of the key economic issues associated with “contractors on the battlefield.” Throughout this thesis, in-house provision on the one hand and privatization and outsourcing on the other, are treated as distinct public policy alternatives. Thus, the government’s role as it pertains to the provision of defense is first highlighted. The empirical basis for effective privatization and outsourcing is also emphasized. Next, the economics of privatization, as it pertains to the make-or-buy decision, are addressed. Other key considerations, including transaction costs economics, agency theory, contracting mechanisms, and industry competitiveness are subsequently discussed.

⁵⁵ Reason Public Policy Institute, *Privatization 1997: A Comprehensive Report on Contracting, Privatization, and Government Reform*, 11th Annual Report on Privatization, 1997; quoted in Singer, *Private Warriors*, 67.

Above all, it is important to note that these economic arguments provide only a theoretical basis on why one should expect efficiency savings. In weighing the benefits of privatization and outsourcing, comparisons often involve an ideal norm and an existing institutional arrangement which is imperfect. Demsetz emphasizes that such a “nirvana” approach differs considerably from a comparative institution approach in which the relevant choice is between alternative *real* institutional arrangements.⁵⁶ In other words, a relevant notion of efficiency must refer to market and institutional arrangements as they are, not as they could be. For example, private markets often fail to be perfectly competitive and government can also compare favorably for organizing certain tasks. Ultimately, therefore, a comparison must be made between two imperfect modes of organization.

B. THE ECONOMIC VIEW OF PRIVATIZATION

1. The Role of Government

Sociologist Max Weber argued that "a state is a human community that claims the monopoly of the legitimate use of physical force within a given territory."⁵⁷ In other words, the state (or government) must be responsible both for defining the conditions for the legitimate use of force, and also for ensuring that illegitimate violence is prevented or punished. In viewing the provision of national defense, Adam Smith writes,

The first duty of the sovereign, that of protecting the society from the violence and invasion of other independent societies, can be performed only by means of a military force. But the expence [sic] both of preparing this military force in time of peace, and of employing it in a time of war, is very different in the different states of society, in the different periods of improvement.⁵⁸

How that force should be provided, however, is debatable. As a general rule, government employees typically provide most services associated with the collection of tax revenues.

⁵⁶ Harold Demsetz, “Information and Efficiency: Another Viewpoint,” *The Journal of Law and Economics* XII (1): 1

⁵⁷ H.H. Gerth and C. Wright Mills, *From Max Weber: Essays in Sociology*, (New York: Oxford University Press, 1946), 77.

⁵⁸ Adam Smith, *The Wealth of Nations*, ed. Edwin Canaan (New York: The Modern Library, 1937), 653.

On the most basic level, therefore, widespread use of PMCs has re-ignited a longstanding debate on what the fundamental scope and role of government should be. As a result, before exploring the economics of privatization, it is first critical to understand the role of government in society.

The provision of national defense is often cited in economics classrooms as an example of a pure public good. An inherently public good is one from which each person benefits from its provision whether he helps pay for it or not. Such public goods, if left to private markets, would be undersupplied or not supplied at all.⁵⁹ In turn, most economic arguments for government intervention are based on the idea that the marketplace cannot provide these public goods or handle externalities. As Stokey and Zeckhauser note, the provision of public goods is one of the primary justifications for a public choice mechanism, and indeed for the very existence of governments.⁶⁰

Donahue adds that the choice between public and private has two dimensions, financing and performance. The first dimension, financing, considers if we should pay for some good or service individually, out of our own resources, or if it should be paid for collectively with funds raised through taxation. Most economists would agree that the *financing* of national defense must be carried out by the government. The second dimension, performance, considers if the good or service is provided by a governmental organization or nongovernmental organization. Even though it is our government's role to provide for the common defense, it need not exclusively produce all of the necessary inputs to do so. While Figure 3 provides a starting point to consider the public private choice, we will see that distinction often becomes much more blurred.

⁵⁹ See Charles Wheelan, *Naked Economics: Undressing the Dismal Science*. (New York: W.W. Norton & Company, 2002), 57. Public goods have two salient characteristics. First, the marginal cost of offering the good to additional users is very low or zero. Second, it is very hard, if not impossible, to exclude persons who have not paid for the good from using it.

⁶⁰ Edith Stokey and Richard Zeckhauser, *A Primer for Policy Analysis* (New York: W.W. Norton, 1978), 306.

	Collective Payment	Individual Payment
Public Sector Delivery		
Private Sector Delivery		

Figure 3. Dimensions of the Public/Private Choice

Source: From Donahue, *The Privatization Decision*, 7.

To reiterate, the outsourcing of defense activities is not a revolutionary concept. Fredland notes that while the *tools* used to conduct defense activities are almost exclusively privately produced, public agencies have, for the most part, retained a monopoly on the use of those tools.⁶¹ Consider, for example, a major defense contractor such as Boeing or Raytheon producing specialized weapons systems. Essentially, the U.S. government is the only prospective buyer. As Fredland and Kendry note, there is a great deal of literature in professional economics devoted to the private production and provision of these weapons systems (a crucial *input* in the production of military force), yet privatization of military *output* is a “radical concept little discussed within mainstream economics literature.”⁶²

This distinction between the inputs and outputs to war has indeed become more of a gray area, especially with respect to current contingency operations. Contractors have become vital components to DoD’s warfighting capability and are now serving in an unprecedented number of roles. In turn, some have become concerned that the government’s so-called monopoly on the use of force is jeopardized. For example, Avant argues that “privatization’s clearest effects are to enhance the importance of market mechanism and diffuse control to a wider variety of actors.”⁶³

⁶¹ Fredland, “Outsourcing Military Forces,” 210.

⁶² Eric Fredland and Adrian Kendry, “The Privatisation of Military Force: Economic Virtues, Vices and Government Responsibility,” *Cambridge Review of International Affairs* 13 (1): 150. Hereafter referred to as “The Privatisation of Military Force.”

⁶³ Deborah Avant, “The Privatization of Security and Change in the Control of Force,” *International Studies Perspectives* 2004 (5): 156.

2. The Economics of Privatization

Two Fundamental Theorems of Welfare Economics provide the basis for the presumption that competitive markets allocate resources efficiently. In the absence of mathematical proofs, they are summarized as (1) a competitive equilibrium is Pareto-efficient and will lead to an efficient allocation of resources, and (2), any Pareto-efficient allocation can be supported by a competitive equilibrium. Thus, the first theorem underscores the importance of free markets—let markets do the work and the outcome will be desirable. In this example, there is no role for the state in production.

Clearly, strong assumptions must hold for these theorems to be true. As Bortolotti and Siniscalco note, markets must be perfectly competitive; externalities must not exist; there must be no public goods; and people must be perfectly informed.⁶⁴ These assumptions are clearly quite restrictive and, when relaxed, a case can be made for government intervention. For example, some tasks cannot be organized through the market. In other cases, the prices of goods and services give false signals about their real value.

Instances where markets do not work perfectly, termed “market failures,” provide justification for government activity. Examples of market failures include externalities, monopolies, incomplete or inaccurate information, and public goods.⁶⁵ Thus, people often propose government spending or intervention when they perceive a market failure, meaning some result is only achievable through government rather than individual means. Within this framework, defense is widely considered as a public good.

Even if efficiency dictates that the government must provide good and services, it is not clear whether the government should be directly involved in the production of those goods versus contracting with private firms to produce the same goods in its place. In other words, even if government has an important role to play in the economy, such as providing defense, it does not follow that government must actually do the work.

⁶⁴ Bernardo Bortolotti and Domenico Siniscalco, *The Challenges of Privatization: An International Analysis* (Oxford and New York: Oxford University Press, 2004), 6.

⁶⁵ Stokey and Zeckhauser, *A Primer for Policy Analysis*, 297.

Wheelan asserts that “government should not be the sole provider of a good or service unless there is a compelling reason to believe that the private sector will fail in that role.”⁶⁶ If the bidding process is competitive, then a task can go to the firm that can do the best work for a given cost. Thus, a public good can be delivered in a way that harnesses the benefits of the market.

Next, consider which goods or services government should provide and which should be provided privately. Neoclassical economics views national defense as a production process, transforming a given mix of inputs (equipment and personnel) to achieve a given level of output (national defense). In turn, the purposes of such output can be achieved with various combinations of people and weaponry. Stiglitz notes that in the case of a market failure, even if it calls for government intervention, it does not necessarily call for government production. In other words, “arguments concerning the necessity of public provision of public goods only require government financing; that analysis does not speak at all to the question of whether a public good should be publicly or privately produced.”⁶⁷ The same holds true when the government decides that individuals should get certain services like medical care or education. It can pay for these services without producing them itself.

Clearly, the production of certain goods needed to wage war has remained in the domain of the private market as exemplified by weapons systems, vehicles, and ammunition. Yet the “service side” of war has been understood to be the sole domain of government and deemed one of the most essential tasks of government. As Fredland notes, privatization of military output is a “radical concept little discussed within mainstream economics literature and rarely practiced.”⁶⁸

Although there is nothing new about the military’s use of private contractors, the Iraq war has demonstrated the employment of PMCs on an unprecedented scale. In turn, the Pentagon’s increasing reliance on outsourcing military functions raises important

⁶⁶ Wheelan, *Naked Economics*, 65.

⁶⁷ Joseph Stiglitz and others, *The Economic Role of the State*, ed. Arnold Heertje (Southampton, Great Britain: Camelot Press, 1989), 40.

⁶⁸ Fredland and Kendry, “The Privatisation of Military Force,” 150.

questions about accountability and the chain of command. As a result, many of the government's current outsourcing efforts have been met with some apprehension by top military commanders, policy planners, military experts, and contractors.

In the case of government production, how will we know if goods and services are produced efficiently? The incentive to operate efficiently differs between the public and private sectors and understanding the shortcomings of both systems is critical. In the private sector, there is a strong incentive to produce efficiently because lower costs translate into higher profits. The index of performance (profit) is noticeably absent in the public sector, as are market signals like stock prices and bond ratings.

Government produces by arranging relationships whereby individuals and organizations devote resources to designated public purposes. By its nature, government is an institutional process through which individuals collectively make choices and carry out activities. This collective decision process—a complex interaction among voters, legislators, and bureaucrats—is in stark contrast to a market-based system. First, fundamental aspects of the political process are clearly disadvantageous to economic efficiency. Fundamental attributes of American democracy like periodic elections and majority rule are clear examples. Insecure property rights in combination with separation of powers yields a bureaucracy that is “vastly overformalized and disabled by its own organization.”⁶⁹ In addition, the output of government is often complex and controversial. Agencies often have multiple and competing priorities such as wealth redistribution, regulatory considerations and, of course, political pet projects. The private sector allocates resources where they will earn the highest return. As is often the case, the government allocates resources wherever the political process sends them.

In addition, it is important to note that the shortcomings of internal efficiency are not based on the assumption that those employees of a bureaucratic government are inefficient or incapable. Rather, the emphasis is on the *information* and *incentives* under which managers and other workers toil. The performance of individuals cannot readily

be judged, and, without private ownership, their personal wealth cannot be significantly altered by changes in the level of efficiency. Furthermore, public officials spend other people's money and are less likely than private actors to be conscious of cost. The key question then becomes: where do we draw the line between public and private provision of goods?

Theoretically, the case for privatization is strong if private-sector production of a given level of output is more efficient and more innovative.⁷⁰ In competitive conditions, privatized companies tend to outperform public enterprises and potentially generate large efficiency gains. As privatization takes place, management's incentives become altered toward profit-seeking behavior. In other cases, low entry barriers allow for new firms to enter the market and vie for contracts—a precursor towards attaining efficiency gains from competition. One clear-cut example is when the outsourced service is represented by low economies of scale, technological simplicity, and moderate investment costs.⁷¹

Another key aspect to privatization is flexibility. The reason that outsourcing sometimes saves money is that it inspires new ideas about how to deliver a service that require fewer people or different materials. Critical issues pertain to the accuracy of assumptions about the ease of seller access to the contract market and the ready and inexpensive availability of relevant contract information.⁷²

3. The Historical Case for Cost Savings

Advocates of government contracting argue that private suppliers deliver public services at a lower cost than public employees do. At the same time, critics of government outsourcing believe that the quality of service delivered is inferior to that delivered by public employees. Within government, several studies have shown that carefully managed privatization, under the right circumstances, can effectively provide

⁶⁹ Terry Moe, "The Positive Theory of Public Bureaucracy," in Dennis Mueller, ed., *Perspectives on Public Choice*. New York: Cambridge University Press, 455 – 480; qtd in Williamson, "Public and Private Bureaucracies: A Transaction Cost Economics Perspective," *Journal of Law Economics and Organization* 15 (1), 325.

⁷⁰ Fredland and Kendry, "The Privatisation of Military Force," 150.

⁷¹ Donahue, *The Privatization Decision*, 67.

specialized expertise, save money, and result in improved service delivery. Nearly thirty years ago, for example, a GAO study comparing federal agency efficiency with private firms handling medical and insurance claims found that it costs the government nearly twice as much as it cost private insurance carriers to process each claim.⁷³ In that case, cost results were explained by higher government salaries and lower government productivity. Many other studies have shown that cost savings of 20 to 30 percent have been achieved when contracting out for other services like health care, police, prisons, garbage collection, and utilities.⁷⁴

With respect to DoD, results have been mixed. In 1984, GAO reviewed 235 service-support contracts and found that, on average, competitive contracting saved the services 22 percent.⁷⁵ Furthermore, the GAO noted that public suppliers also displayed substantial efficiency gains when faced with competition from private rivals. As Gansler points out, “the conclusion one might reach is that when the public sector is forced to compete, they are able to do the same work just as well, or better, than before the competitions, but with significantly fewer people—in fact, frequently with 20 to 40 percent fewer people.”⁷⁶ In several other studies, GAO believed savings were occurring, but consistently noted that they were difficult to quantify. As a result, DoD has been often been chided for its overly-optimistic estimates of cost savings.⁷⁷

Specifically, the Department has regularly boasted that competitive sourcing has attained cost savings ranging from 20 percent to 39 percent for activities ranging from logistics support to weapons system maintenance. In another example, the Department

⁷² Elliot Sclar, *You Don't Always Get What You Pay For: The Economics of Privatization*. (Ithaca: Cornell University Press, 2000), 8.

⁷³ Steven Rhoads, *The Economist's View of the World* (Cambridge, U.K.: Cambridge University Press, 1985), 70.

⁷⁴ Ibid.

⁷⁵ Department of Defense, *Report to Congress, Department of Defense Commercial Activities Program* (Washington, D.C., 1986); quoted in Donahue, *The Privatization Decision*, 68.

⁷⁶ Gansler, “Moving Towards a Market Based Government,” 51.

⁷⁷ See U.S. Government Accountability Office, *Rebuilding Iraq: Fiscal Year 2003 Contract Award Procedures and Management Challenges*. GAO-04-605 (Washington, D.C., 2004) and *Rebuilding Iraq: Continued Progress Requires Overcoming Contract Management Challenges*. GAO-06-1130T (Washington, D.C., 2006).

estimated savings from competitive sourcing at near \$9 billion from FY97 to FY05. To achieve these savings, most private agencies cut costs by reducing their workforce, operating with fewer managers, and downgrading positions. Notable exceptions when the government did not save money were for more complex and hard-to-specify services—arguably the type of reconstruction contracting currently occurring in the Iraqi reconstruction effort. In reviewing logistics support contracts during the 2003 – 2004 timeframe, for example, GAO found that LOGCAP use in Kuwait and Iraq was not adequately planned and noted that military commands exhibited little concern for cost considerations. Given the lack of adequate planning and contractor involvement, two key ingredients needed to maximize LOGCAP support and minimize cost—a comprehensive statement of work and early contractor involvement—were missing.⁷⁸

Generally speaking, Army personnel have given favorable reviews of KBR’s performance in the Balkans, Afghanistan, and the Middle East. Greenfield and Camm note that “the Army has been getting what it needs, though it may, at times, have accepted more cost-related risk than necessary to get it.”⁷⁹ The Army’s initial experience in contracting for logistics support under LOGCAP I is a good example. Contracts for support services represented over \$2 billion of approximately \$13.8 billion spent on Balkan operations through March 2000.⁸⁰ Under the cost-reimbursement contract, the government articulated the contractor’s function in *results required* rather than the methods of performance of the work. In this type of contractual arrangement, the government does not provide detailed specifications and work descriptions. Empirically, these types of work statements give the contractor a greater degree of freedom to use the latest commercial practices and techniques to meet requirements successfully. Due to the nature of the cost-reimbursable contract, KBR was given significant latitude on how tasks could be performed. In reviewing the operations of KBR in Bosnia, GAO subsequently

⁷⁸ U.S. Government Accountability Office, *Contract Management: Contracting for Iraq Reconstruction and for Global Logistics Support*. GAO-04-869T (Washington, D.C., 2004); 8.

⁷⁹ Victoria Greenfield and Frank Camm, “Risk Management and Performance in the Balkans Support Contract,” [report on-line] (RAND, 2005); available from http://www.rand.org/pubs/monographs/2005/RAND_MG282.sum.pdf (accessed October 2006).

⁸⁰ U.S. Government Accountability Office, *Contingency Operations: Army Should Do More to Control Contract Cost in the Balkans*. GAO/NSIAD-00-225. (Washington, D.C., 2000); 3.

noted that the Army needed to provide greater oversight to verify matters relating to economy and efficiency.⁸¹ Specifically, the contractor had little incentive to control costs—it would be fully reimbursed for expenses and was guaranteed an award fee.

Due to the nature of these cost-plus award fee contracts, they require significant government oversight to make sure they are meeting needs in the most economic and efficient method possible. Despite these cost concerns, evidence has shown the government did attain some degree of cost savings. For example, a comprehensive 1997 Logistics Management Institute study found that KBR completed work using 6,766 employees and costing \$462 million that would have taken the Army 3,918 soldiers and \$638 million. In this case, most of the cost savings came from labor costs and these cost savings were achieved by using lower-paid host country nationals.⁸² In a separate GAO report, the U.S. Army reported savings of \$200 million under the contract (roughly ten percent of the \$2 billion contract ceiling) by reducing labor costs, reducing services, and closing or downsizing camps that were no longer needed.⁸³

Clearly, a strong case can be made that competitive sourcing *can* save money. Yet, is there evidence that contract costs ever materialize into the services' Operations and Maintenance (O&M) or Research and Development (R&D) accounts? To the extent that support and personnel costs can be reduced, available future defense dollars could be used for modernization or other important defense priorities. In a more recent study of DoD's competitive sourcing efforts, RAND analysts Susan Gates and Albert Robbert found that personnel cost savings are indeed "real and long-lasting."⁸⁴ In reviewing six competitive sourcing efforts, the authors found that for every personnel dollar DoD spent

⁸¹ U.S. Government Accountability Office, *Contingency Operations: Army Should Do More to Control Contract Cost in the Balkans*, 4.

⁸² Anthony Bianco and Stephanie Anderson Forest, "Outsourcing War," *Business Week Online*, 15 September 2003. Available from http://www.businessweek.com/magazine/content/03_37/b3849012.htm (accessed October 2006).

⁸³ U.S. Government Accountability Office, *Contract Management: Contracting for Iraq Reconstruction and for Global Logistics Support*, 10.

⁸⁴ See RAND, "Research Brief: Does Competitive Sourcing Pay Off," [report on-line] (RAND, 2000); available from [http://emissary.acq.osd.mil/inst/share.nsf/81BED0D69DA2195B85256FA10045B181/\\$FILE/RB7536.pdf](http://emissary.acq.osd.mil/inst/share.nsf/81BED0D69DA2195B85256FA10045B181/$FILE/RB7536.pdf) (accessed October 2006).

to obtain a given level of service before competitive sourcing, winning bidders promised to provide the same level of service for only 41 cents to 66 cents.⁸⁵ To achieve those savings, every private sector and DoD winner of competitive sourcing reduced its workforce, sometimes significantly. Compared with their pre-competitive sourcing personnel counts, winners of A-76 efforts were able to provide a specified level of services after competitive sourcing with workforces that were some 25 percent to 60 percent smaller. This allowed A-76 winners to flatten their organizations, operate with fewer managers, and create more efficient operations, relying on fulltime workers rather than on personnel who at any moment could be called away to other military assignments. At the time they analyzed the competitive sourcing winners, organizational cost savings measures had been in place one to ten years. Each achieved the personnel cost reductions that had been touted during the A-76 competitive bidding process. Furthermore, each has been able to maintain those savings, with only minor fluctuations, in the years since.

C. THE IMPORTANCE OF TRANSACTIONS COSTS

1. Transactions Cost Economics Defined

As we will see in this section, much of the current debate surrounding military outsourcing often ignores the transactional complexity inherent in contracting arrangements. The transaction cost economics (TCE) approach is directly applicable to military make versus buy decisions. TCE seeks to determine if it is in a firm's best interest to contract for a specific function or if it is more economical and efficient to produce such goods or services internally.

The decision to buy or sell in a market is accompanied by certain costs that cannot be avoided if a market transaction is to take place. These costs of engaging in trade or exchange in the marketplace are called transaction costs. Such transaction costs are indeed a fundamental reason firms come into existence, as highlighted by economists Ronald H. Coase and Oliver Williamson. As previously discussed, potential buyers must have access to market information, which may involve substantial costs. At the same

⁸⁵ RAND, "Research Brief: Does Competitive Sourcing Pay Off?"

time, the contracting process might entail significant negotiations. Furthermore, costs are incurred to monitor performance of the contract.

An analysis of transaction costs provides crucial insights to the firm's make or buy decision. As Thompson and Formby note, "when trade and exchange in the market entail high transaction costs, performing an economic activity inside the firm may be a more efficient method of accomplishing an objective than by relying solely on exchange and trade between individuals. If firms are more efficient at either production or transactions than individuals they become economically viable and have social purpose."⁸⁶

Typical transaction costs faced by organizations when dealing with outside suppliers include source selection, periodic competition and renegotiation, contract management, and monitoring performance.⁸⁷ These transaction costs are, in turn, primarily influenced by uncertainty and frequency of recurrence. Therefore, the less complex a transaction, the easier it is to write an enforceable contract that covers relevant contingencies. As a result, good candidates for outsourcing are those with little in the way of specific assets, where the task is well defined, easy to measure, and not subject to change, and where there are several competing suppliers.⁸⁸ Additionally, price and performance are market driven. Alternatively, transactions that involve a non standardized service, and must take place in a bilateral contract setting, are more challenging outsourcing candidates.

Perhaps the most important, yet most difficult to understand, transaction cost is asset-specificity, or more precisely, relationship-specific investments. The importance of these costs is underscored in subsequent sections and examples that follow; thus they bear particular attention. To reiterate, asset specificity refers to the degree which an asset that is used to support a transaction can be redeployed to alternative uses without loss of

⁸⁶ Arthur Thompson and John Formby, *Economics of the Firm: Theory and Practice*, 6th ed. (Upper Saddle River: Prentice-Hall, 1993), 22.

⁸⁷ Raymond Franck, Francois Melese, and John Dillard, "A Transactions Cost Economics Approach to Optimal Contract Type," in *Proceedings from the Third Annual Acquisition Research Symposium*, (Monterey, CA: Naval Postgraduate School, 2006), 373.

⁸⁸ *Ibid.*, 246.

productive value. More simply, asset specificity refers to the extent to which a party has made investments in an asset or set of assets which are "tied in" to a specific two-way or multiple-way business relationship. Some relationship-specific investments, including some of those relevant in the context of military contractors, are not investments in "assets" in the traditional sense. For example, the military's investment in training a soldier is an investment that is specific to the relationship with that particular soldier—the investment has no value to the military if the relationship is severed. However, it is not really an investment in a fixed, capital asset. To be sure, employees are often considered "assets," but investments in training are typically not recognized as being "asset specific." In this context, however, relationship-based investments are particularly important in viewing the inherent differences between military forces and private contractors, especially when analyzing cost-effectiveness arguments. These transaction costs are more formally explained in Chapter IV.

Two brief examples from the government's perspective will underscore the importance of transaction costs. First, consider the upkeep of an installation's landscaping. It is a short-term and specific task in a market with many competing suppliers. Since the task is well defined, measuring performance is also straightforward. From the perspective of both sides, demand uncertainty is limited in the short term (seasonality) and long term. In this case, the contractor is not required to invest in assets that are tied to the requirements of this particular job, nor does the government need to incur any fixed investments that are specific to the particular contractor. Thus, there are no significant relationship-specific-investments required of the contractor or the government. Thus, landscaping represents an excellent candidate for outsourcing. Alternatively, developing new weapons systems, like the Air Force's new F-22 fighter as an example, is a specific task encompassing several years and billions of dollars. There are fewer major contractors qualified for award of a major acquisition program, and those that are must make substantial relationship-specific investments in capital and equipment that is specific to the particular weapons system. Similarly, the government's investment in the project are also relationship-specific in that the technical knowledge that the contractor acquires during the development process can not easily be transferred to

another contractor if the government ever becomes dissatisfied with the initial contractor. Thus, both sides become, to a significant degree, “locked in” by investments that are specific to the relationship. Risk is partly offset via specialized contracting mechanisms at different phases in the program. These contracts can be lengthy, detailed, and expensive, and management will require extensive oversight because performance is difficult to measure. As evidenced by heated contract disputes, asymmetrical information will often exist—at some point, either the contractor or DoD will feel taken advantage of. The challenge, therefore, is to write a contract with enough precision to encourage desired performance, but allow enough flexibility to accommodate adjustments as circumstances require.

Whereas private firms offer incentives which are maximized in competitive markets, some have argued that public agencies are better at ensuring a degree of loyalty and trust to the nation state. Economist Oliver Williamson applied the general TCE framework to explain why a public agency may be appropriate for organizing some tasks and inappropriate for others. He underscores “sovereign transactions,” defined as those tasks for which “public authority is deemed necessary, for which loyalty to the state is fundamental, and which may pose implications for the security of the state.”⁸⁹ Where public transactions are concerned, he extends the original set of transactional attributes (asset-specificity, uncertainty, frequency), with an additional characteristic termed “probity.” With probity, Williamson refers to the loyalty and rectitude with which certain public transactions are to be discharged.⁹⁰ More specifically, probity implies a high standard of integrity, to include professional excellence, in the organization to which a task has been assigned. To make clear in what respect *sovereign* transactions requiring probity differ from other transactions, Williamson cites Wilson’s observation that the government itself organizes such transactions not because the “government is cheaper or

⁸⁹ Fredland, “Outsourcing Military Force,” 209.

⁹⁰ Williamson, “Public and Private Bureaucracies: A Transaction Cost Economics Perspective,” *Journal of Law Economics and Organization* 15 (1), 322. Hereafter referred to as “Public and Private Bureaucracies.”

more efficient, but because it alone embodies the public's authority."⁹¹ From a contractual standpoint, "probity transactions" are long-term and highly incomplete, while demanding loyalty to leadership and mission, as well as process integrity. Williamson argues that, among feasible alternatives, the public bureaucracy is the *most efficient* organization for delivering sovereign transactions. In this regard, therefore, the author notes that the term "sovereign" is consistent with what was previously characterized in Chapter II as "inherently governmental." In addition, Fredland notes that "low-powered incentives, characteristic of public bureaucracy, are actually desirable, because they deter employees from being non-compliant and adventurous."⁹² In turn, the primary purpose of administrative controls, such as rules, regulations, and standard operating procedures is to promote probity in mission, responsiveness, and communication.⁹³

Most would agree that troops directly engaged in conflict would qualify as a sovereign transaction, as would a fighter pilot or battalion commander. However, Williamson's characterization of "sovereign" does leave some room for interpretation. For example, where would a truck driver delivering critical supplies fit in? Moreover, consider the roles of hired maintenance staff or security guards. To be sure, loyalty and compliance towards the mission will certainly be very important for these types of tasks but in all likelihood, the government will want to trade off some degree of risk to obtain some cost savings. Probity will remain important, but it is of a lesser concern. In these cases, a contract can be tailored to suit the needs of the government and provide an incentive for a contractor to take on the job. At the same time, contracting for traditionally in-house services is often complex and that is where we next turn our attention.

2. Contracting on the Battlefield: Why Incentives Matter

Even in peacetime, generating quantifiable requirements for weapons systems and services can often be difficult. It should follow, therefore, that a contingency operation

⁹¹ James Q. Wilson, *Bureaucracy* (New York: Basic Books, 1989); qtd in Williamson, "Public and Private Bureaucracies," 321.

⁹² Fredland, "Outsourcing Military Force," 210.

⁹³ Williamson, "Public and Private Bureaucracies," 325.

makes the contracting environment much more uncertain. Contracting for tactical roles involves inherent elements of complexity, uncertainty, and opportunism. An element of uncertainty arises in writing contracts covering a range of unknown and unknowable future contingencies. Inevitably, the contract will be incomplete—creating an opportunity for either side to take advantage of one another. Thus, a basic understanding must exist between the contractor and the government to ensure that the contractor will be held accountable for service regardless of the threat level and that the contractor has adequately trained personnel available to meet all contingencies. Therefore, the government must provide an incentive for the PMC to assume risk. The threat of uncertainty may be partly offset by utilization of cost-plus contracts, under which risk is shared jointly between the contractor and government, or target-cost-incentive-fee contracts, which incentivize price performance. More importantly, firms would have incentives to default on those parts of the contract which are difficult and costly to specify and enforce; and such behavior could have serious repercussions on military capabilities. In the event a contractor could renege, the government is extremely vulnerable to hold-up. In April of 2004, for example, a KBR truck convoy was ambushed, leaving six drivers killed and one taken hostage. As Martin Smith of PBS reported, several truckers subsequently refused to drive until security had improved. In turn, the military's re-supply capacity was greatly diminished. According to Smith, "the military was left with dwindling stores of ammunition, fuel and water."⁹⁴ Thus, the actions of a handful of employees, as evidenced by the "threat" to withdraw or renege, could pose a serious threat to military capability.

Successful contracting depends on the government's ability to foster competition, develop clear contract specifications, and carefully select the best provider. In this regard, a key consideration is whether the contractor's profit motive will improve quality and/or reduce costs. To ensure it obtains the best price possible, the government *usually* resorts to competitive bidding—contractors tell the government the price at which they are willing to deliver, and the government purchases from the lowest bidder. A variety of

⁹⁴ PBS Frontline, "Private Warriors: Frequently Asked Questions," [web-page] (PBS, 21 June 2005); available from <http://www.pbs.org/wgbh/pages/frontline/shows/warriors/faqs> (accessed October 2006).

contractual arrangements are available to DoD and its contractors, typically depending on the product or service provided. The government's objective is to negotiate a contract type and price that will result in reasonable contractor profit and provide the contractor with the greatest incentive for efficient and economical performance. The larger the scale or more complex the transaction, the greater the perceived contract risk.

Contracts are generally grouped into two broad categories: cost-reimbursement contracts and fixed-price contracts. Cost-reimbursement type contracts are suitable for efforts "when uncertainties involved in contract performance do not permit costs to be estimated with sufficient accuracy."⁹⁵ As a result, the government will incur a greater degree of cost and performance risk. Types of cost-reimbursable contracts include: cost-contracts, cost-sharing contracts, cost-plus-incentive-fee contracts, and cost-plus-award-fee contracts. Major reconstruction efforts in Iraq have primarily utilized cost-reimbursement types of contracts in which the government has agreed to reimburse the contractor for "all reasonable and allowable costs incurred in performing the work."⁹⁶ In contracts to repair the Iraqi oil infrastructure and support the Coalition Provisional Authority, the government has also included an award fee provision under which the contractor can earn an additional profit for meeting set targets in specified areas, such as schedule and cost control. In contrast, fixed-price contracts are typically used when overall risk is "minimal or can be predicted with an acceptable degree of certainty."⁹⁷ These contracting conditions will exist in instances where there is limited uncertainty and complexity. In the case of fixed-price contracts, the risk is placed on the contractor—the government's price will remain fixed regardless of the costs incurred. At the same time, this assumes that the contractor is entitled to any excess profit based on whatever type of savings it can generate. Cost reimbursable contracts appear to be the most appropriate choice for contracts where contractors are in a volatile battlefield environment and where

⁹⁵ General Services Administration, Department of Defense, National Aeronautics and Space Administration, *Federal Acquisition Regulation* (Washington, D.C., March 2005); qtd in Franck, Melese, and Dillard, "A Transactions Cost Economics Approach to Optimal Contract Type," 260.

⁹⁶ U.S. Government Accountability Office, *Rebuilding Iraq: Fiscal Year 2003 Contract Award Procedures and Management Challenges*, 24.

circumstances and requirements are dynamic.⁹⁸ If circumstances eventually dictate, it may be viable to adopt a fixed-price contract, thereby shifting more of the risk to the contractor and further developing the definition of requirements.

In the context of a dynamic, uncertain contingency effort, the distinction between different contracting mechanisms is important. In this analysis, it is assumed that the key issue for the military is cost, and it might be thought that fixed price could still yield greater savings for the military, even in the presence of uncertainty, due to the incentive effects. In reality, however, the risk aversion of the contractor will mean that the contractor will demand a greater risk premium the greater the uncertainty, and therefore fixed price contracts will actually not only be inappropriate but also more expensive, on average, in such environments. For example, a risk neutral contractor should be willing to accept any offer greater than \$2 million for a job that has an a priori probability of 50% of costing \$1 million to perform and 50% of costing \$3 million to perform (including the opportunity cost of capital). In reality, however, risk aversion (both behavioral and practical due to liquidity concerns) would induce the contractor to demand a fixed price of perhaps \$2.5 million for such a job. If the uncertainty were reduced, keeping the expected cost the same (for example, 50% chance of costing \$1.5 million and 50% chance of costing \$2.5 million), the risk averse contractor would demand a lower fixed price.

There are important exceptions to these traditional contracting arrangements. Contracting for services and support in a battlefield environment is rarely that clear-cut, and it takes time to undergo a competitive bid. Faced with the uncertainty as to the full extent of rebuilding Iraq, therefore, the government authorized contractors to begin work before key terms and conditions (including price) were defined. This approach allowed the government to initiate needed work quickly, but resulted in additional costs and risks

⁹⁷ General Services Administration, Department of Defense, National Aeronautics and Space Administration, *Federal Acquisition Regulation* (Washington, D.C., March 2005); qtd in Franck, Melese, and Dillard, "A Transactions Cost Economics Approach to Optimal Contract Type," 260.

⁹⁸ Ryan M. Novak, "Going to War With Defense Contractors: A Case Study Analysis of Battlefield Acquisition" (Master's Thesis, Air Force Institute of Technology, 2004), 191. Hereafter referred to as "Going to War With Defense Contractors."

being borne by the government. These indefinite delivery contracts establish only basic terms of the contracts in advance, requiring the government to issue subsequent task or delivery orders for specific services or goods. Subsequent orders must be within the contract's scope, issued within the period of performance, and within the contract's maximum value. Until contract terms are well defined, however, cost risk for the government remains. More specifically, any delays in finalizing contracts makes cost-control incentives much less effective since there is less work remaining to be accomplished and, therefore, less cost to be controlled by the contractor. Arguably, these factors can also distort the accuracy of original bidding, since follow-on costs will be negotiated afterward. From an economic point of view, this can lead to "rent-seeking," whereby, a contractor will aim to bid low on an initial contract in anticipation that follow-on contracts will be awarded.⁹⁹ In this case, contractors will have less incentive to innovate or cut costs, as their contract will grant them an effective monopoly for a given period of time. The issues of relationship-specific investments are also highlighted in the specific context of follow-on contracts. In particular, there is often very little relationship-specific investment by the military at the time of initial contract award (given alternate potential suppliers and in-house capabilities at the time), suggesting few transaction costs. At the subsequent stage, however, the alternate potential suppliers will be significantly behind the existing supplier on the learning curve and the in-house capabilities may no longer exist since the function was outsourced. Thus, there is often a delay in the relationship-specificity of such an investment and the hold-up threat is much more significant at the follow-on stage.

Once a contract is awarded, managing it also poses a challenge. Oversight and accurate cost reporting can be difficult in DoD's peacetime acquisition system. With thousands of contracts awarded in the last decade, a dedicated cadre of procurement

⁹⁹ Termed by economist Anne Krueger, "rent-seeking" is defined as the expenditure of resources in order to bring about an uncompensated transfer of goods or services from another person or persons to one's self as the result of a "favorable" decision on some public policy. Examples of rent-seeking behavior include all of the various ways by which individuals or groups lobby government for taxing, spending and regulatory policies that confer financial benefits or other special advantages upon them at the expense of the taxpayers or of consumers or of other groups or individuals with which the beneficiaries may be in economic competition.

professionals is needed to oversee the initial source selection, contract management, and performance monitoring. Thus, adequate numbers of trained staff must be available to plan contracts and monitor contract delivery. Without proper oversight, service delivery cannot be assured and costs cannot be confirmed, let alone contained. The lack of oversight over contractors is currently a major cause for concern. In one recent report, GAO noted that DoD lacked the capacity to provide an experienced acquisition workforce, directly hindering oversight efforts.¹⁰⁰ The problem was exacerbated by frequent turnover among troops and a steadily increasing workload. As a result, DoD has frequently found itself relying on contractors to help manage and oversee the work of other contractors.¹⁰¹ In one example, the Army has delegated much of the oversight role for its private security contractors in Iraq to Aegis, a fledgling British-based private contractor.¹⁰² Another report cited that “increased demands on the workforce have led to vulnerabilities in contract pricing and competition.”¹⁰³

3. Summary

In a traditional make-or-buy decision, the decision rule is a matter of comparative direct production cost analysis, as evidenced by current A-76 criteria. It appears that, over the last decade of outsourcing, government criteria have been aimed at achieving cost savings based on *production* cost savings. In reality, however, a relevant comparison should also incorporate a thorough analysis of transactions costs. When the make-or-buy decision involves complex and specialized services, it must also consider the unique range of transaction costs as shown in Figure 4:

¹⁰⁰ U.S. Government Accountability Office, *Rebuilding Iraq: Continued Progress Requires Overcoming Contract Management Challenges*. GAO-06-1130T (Washington, D.C., 2005); 5.

¹⁰¹ *Ibid.*, 9.

¹⁰² PBS Frontline, “Who Are the Contractors?” [web-page] (PBS, June 2005); available from <http://www.pbs.org/wgbh/pages/frontline/shows/warriors/contractors/companies.html> (accessed October 2006).

¹⁰³ U.S. Government Accountability Office, *Contract Management: DoD Vulnerabilities to Contracting Fraud, Waste, and Abuse*. GAO-06-838R (Washington, D.C., 2006); 2.

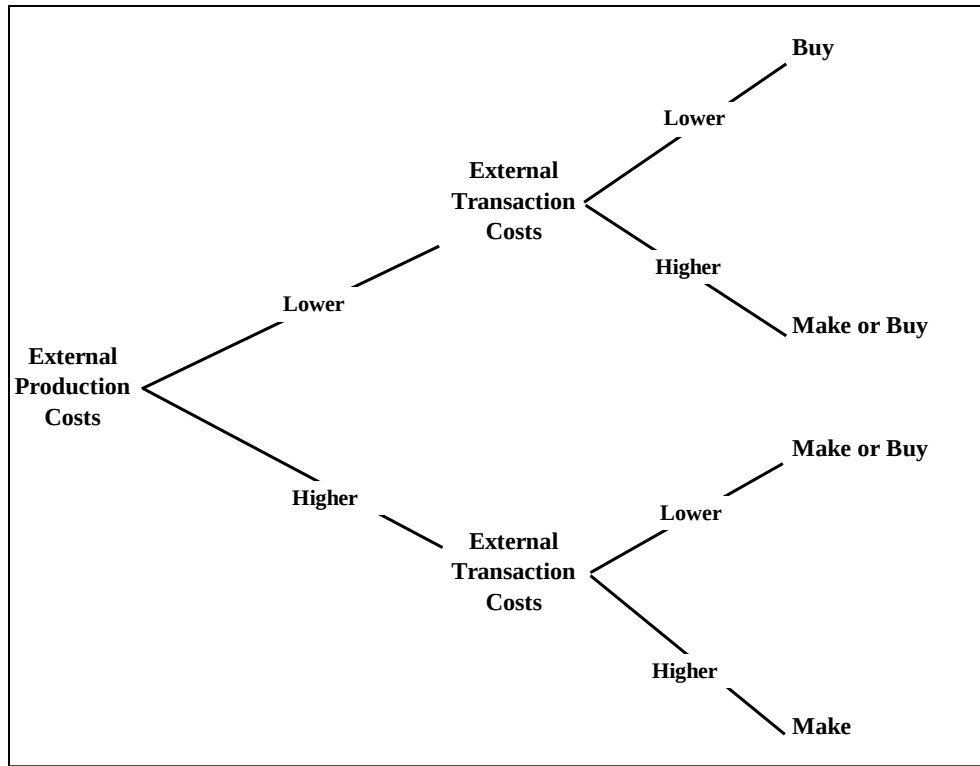


Figure 4. Transaction Cost Economics Framework

Source: Francois Melese and Raymond Franck, “A New Guide to Government’s Make-or-Buy Decisions: Leveraging Transaction Cost Economics” (Monterey, CA: Naval Postgraduate School, Defense Resources Management Institute, Working Paper Series, 2005), 11; available from <http://www.nps.navy.mil/drmi/workingpapers.htm> (accessed November 2006).

These costs, including source selection, contract management, performance monitoring, and relationship-specific investments can negate a significant portion of the production cost savings involved with outsourcing. In a long-term situation, a tradeoff must be made as to why the capability should not exist in-house versus whether a private firm can offer superior service. Other important costs relate to the “middleman” argument. Typically there are several layers of contracts and subcontracts. While this provides the government an advantage by shifting some risk to a large prime contractor (such as Halliburton, Parsons, or Dyncorp) it can also offset efficiency gains. Accompanying each layer are profit margins for each contractor—potentially leading to

higher costs to the government. Relationship-specific investments are also an important consideration, especially with respect to labor. This will be explored more thoroughly in the next chapter.

Finally, contracting for transactions that are long term, highly incomplete, and require loyalty to leadership and mission pose several difficulties. Empirically, the economic incentives of profit-seekers will be vastly different from those incentives found within government institutions. From a more practical standpoint, it is also difficult to create and oversee a contract that will cover a wide range of uncertainties. Sovereign tasks are further characterized by an additional attribute termed probity—implying a high standard of integrity to the organization which the task is assigned. In some cases, however, the government will want to trade off some degree of transactional risk to obtain some cost savings. Probity will remain important, but it is of a lesser concern. In these cases, a contract can be tailored to suit the needs of the government and provide an incentive for a contractor to take on the job.

D. PRINCIPAL AGENT – MORAL HAZARD ISSUES

When contracting for a service, several concerns will usually exist: Will the job get done properly? How can we monitor the performance of the contractor? Finally, how will we know if we are overcharged? With a military source, a commander can use the standard “command-and-control” mechanisms to induce the military agent to perform. With a contract source, however, a commander can only ask for things identified in a predetermined scope of work and can ask only through a contract officer. Some worry that using a contract source on the battlefield will exacerbate the principal-agent problems inherent in any agency relationship. Therefore, the agency relationship bears an important relationship to the make-or-buy decision. A principal, in this case the government, commissions an agent (the contractor) to perform a service on the government’s behalf. The challenges that a principal faces when trying to induce its agent to do something the principal wants done is a contractual hazard inherent in any user-provider relationship. As evidenced by current contingencies, there is inherent risk in safety, cost, and even completing the task. Earlier in the chapter, inherent differences between profit-seeking contractors and civil servants were examined: “profit seekers, in

exchange for a price, deliver a product; while civil servants, in exchange for a wage, agree to accept instructions.”¹⁰⁴ The nature of the task determines whether private contractors or civil servants will be most effective. The commander will want a contractor to perform in a manner consistent with ensuring mission success at a reasonable cost. At the same time, tension will always exist between a state-sponsored military and a PMC that is driven primarily by considerations of profit maximization.

Key elements of government policy also exacerbate risks inherent in the user-provider relationship. This can have implications for mission success as conditions become more uncertain or chaotic. Ultimately, neither a contractual obligation nor financial inducement may be sufficient to ensure performance on the battlefield. As risks rise, contractors will have stronger incentives to renege. This has raised concerns that service providers will no longer be able to provide certain services deemed critical for mission success. After the Vietnam War and with the implementation of the All-Volunteer Force in the 1970s, some observers became concerned about the military’s reliance on contractor support. A Defense Science Board report in 1982 noted that although contractor employees generally performed well during crises and combat, there were no formal mechanisms to ensure their continued performance. Essentially, this is a classic example of a contractor being able to “hold up” the military. Consider the repercussions if KBR cannot deliver critical supplies to the theater. Obtaining the requisite military support may take a substantial amount of time, and finding replacement contractors could be cost prohibitive.

E. COMPETITIVENESS WITHIN THE INDUSTRY

Few decision makers would be interested in privatization unless private firms could achieve superior efficiency. Voluminous literature has been devoted towards answering the question why profit-seeking organizations are more productive. Competition is an important prerequisite for achieving efficient production and low cost. Private, competitive firms can typically reduce costs through innovations and improvements, relative to government agency production. As a result, the number of

¹⁰⁴ Avant, *The Market for Force*, 48.

contractors directly influences contractor efficiency. Recall that in the past several years, DoD has increasingly relied on service-oriented contractors to provide everything from global logistics support to weapons maintenance. In Chapter I, several insights were noted regarding industry structure. To reiterate, the site and personal security sector has the largest number of companies involved. At the same time, these firms in the industry tend to represent smaller, niche players. For many of these smaller private security firms, soaring demand has turned Iraq into a growing market. In contrast, logistics support and military advice and training have the fewest players, indicating economies of scale (or scope) and/or higher barriers to entry. Some tasks, such as rebuilding infrastructure or providing training assistance require substantial resources and capital investment in order to win such contracts. Of additional importance is the fact that several large companies have recently acquired smaller firms, essentially as a move to diversify their business offerings. For example, Blackwater has dealings in military advice and training, operational support, and site/personal security. Similarly, Vinnell provides operational and logistics support, technical services and training programs, and subcontract management. As it pertains to the market within the United States, the military support sector is not only the largest in scope and revenue, but also the most varied in assigned responsibilities. Despite a substantial growth in the number of small security contractors, the number of large support contractors continues to diminish.

Insights as to the competitiveness of the industry are also gained from the types of contractual arrangements utilized. For new contracts, the federal law generally requires use of full and open competition, but permits use of sole-source or limited competition awards in certain circumstances. These include when contracts need to be awarded quickly or when there is only one supplier. Thus, lack of competition is sometimes explicit, as evidenced by reconstruction contracts awarded on a no-bid basis. KBR's "Restore Iraqi Oil" contract was a program designed to get the country's oil flowing quickly to finance reconstruction. The \$2.5 billion contract was awarded without competitive bidding. The government justified that the company was simply the only one capable of handling all of the unique challenges, including oil-well fires and pipeline

breakdowns.¹⁰⁵ According to *The Economist*, the Pentagon's confidence was rewarded: KBR restored production to pre-war levels three months ahead of schedule.¹⁰⁶

F. SUMMARY

Debates on military outsourcing involve questions about why government contracts out some activities and undertakes others in-house and what the limits of private sector activities are in defense. Answers to these questions should be based on the unique benefits and costs of private firms and public agencies. Comparisons often use an ideal model of a perfectly competitive firm compared with an inefficient public sector or vice versa. In reality, the relevant comparison is between two imperfect systems where both modes of organization are flawed.¹⁰⁷ Note that both modes are flawed in both theory *and* practice (and sometimes the flaws observed in practice are not necessarily predicted, or at least not inherent, in the theory). As it relates to current privatization and outsourcing efforts, therefore, a comparison should be made between two modes of organization, each with its own shortcomings. Indeed, just because an organization exists within the government does not mean it is inefficient. Economic theory helps explain why both market forces and public-sector action fail to meet the criteria for ideal efficiency. Deficiencies of either sector will often be more or less decisive, depending on the type of economic activity.

Private firms will offer efficiency incentives that are maximized in competitive markets. In other cases, efficiency incentives are of secondary importance. Some tasks will require a high standard of integrity and loyalty to the mission—those jobs are characterized as requiring probity. Contracting for tactical roles involves elements of complexity, uncertainty, and opportunism. Private firms will have incentives to default on parts of a contract which are difficult and costly to enforce. Inevitably, the contract will be also incomplete—creating an opportunity for either side to take advantage of one another. As Williamson notes, “all complex contracts are unavoidably incomplete

¹⁰⁵ “Hullabaloo Over Halliburton,” *Wall Street Journal (Eastern Edition)*, 5 October 2004, A22.

¹⁰⁶ Ibid.

¹⁰⁷ Keith Hartley, “The Economics of Military Outsourcing,” *Defence Studies* 4 (Summer 2004): 201.

because of bounded rationality and opportunism.”¹⁰⁸ Therefore, the government must provide an incentive for the PMC to assume risk. The threat of uncertainty may be partly offset by utilization of cost-plus contracts, under which risk is shared jointly between the contractor and government, or target-cost-incentive-fee contracts, which incentivize price performance. In the event that a contractor could renege, the government is more vulnerable to hold-up. In a tactical military environment, however, mission attainment will be most crucial. In sum, using contractors versus military forces presents an important tradeoff. The military will ultimately want to ensure mission success, but at the same time, will want to get the biggest “bang for the buck.” As a result, this leaves plenty of room for certain military functions to be performed by private agencies. Using private firms to attain cost savings is not a panacea because of the associated lack of competition, long-term contracts, and inadequate oversight. Alternatively, the case for government intervention is stronger for some tasks than for others. If property rights cannot be well enforced, market arrangements often result in economic inefficiency. Other factors that weaken the case for market-sector allocation include lack of competition, external costs and benefits, public goods, and poor information. Contracting will create additional transaction costs. Requirements have to be specified; competitions have to be organized; contracts must be specified and awarded to the contractor. The inherent cost in writing, enforcing, and monitoring contracts which will deliver services of required quality can be substantial.

Becoming increasingly reliant on PMCs during conflict raises questions pertaining to the sovereign use of force. Empirically, government is using the private market to supply a public good. Within the commercial sector, the defense industrial base has long been recognized as the suppliers of America’s military. Yet the increasing roles and tasks to which contractors are assigned are unprecedented. As contractors have expanded in size and role, some media, government watchdog groups, and scholars are concerned that the government’s so-called monopoly on the use of force is threatened. For example, Schreier and Caparini argue that if security continues to be privatized, the dynamic will fundamentally change the role of the state, which will no longer command

¹⁰⁸ Williamson, “Public and Private Bureaucracies,” 311.

the core function of providing security as a public good but will become one of several potential suppliers.¹⁰⁹ Ultimately, however, the government will still call the shots. It should be re-emphasized that under an outsourcing arrangement, the government remains fully responsible for the provision of affected services and maintains control over management decisions. By its nature, contracting also creates risks inherent in a principal-agent relationship. The principal (government) and the agent (contractor) will have different goals and values. The principal-agent issue, in turn, will concern military commanders. Unless those goals and values are aligned through proper monitoring and incentives, the principal and agent can work at cross-purposes, endangering the success of the mission. The “fog of war” will likely increase such risks.

¹⁰⁹ Schreier and Caparini, “Privatising Security: Law, Practice, and Governance of Private Military and Security Companies,” 87.

IV. EXAMINING THE COST EFFECTIVENESS OF PMCS

A. OVERVIEW

This research began by asking a key question: Are private contractors a cost-effective use of taxpayer dollars? In the previous chapter, an economic framework for privatization was first highlighted, as well as several important considerations relevant to the military's make-or-buy decision. This chapter addresses the considerations for a cost comparison between active military forces and contractors. As we begin this chapter, first consider the meaning of cost effectiveness. What does it mean to be cost effective and what are the requisite conditions to achieve it? Simply stated, cost effectiveness refers to lowest cost methods to achieve desired outcomes. An outcome may be more cost effective than another if it costs less or generates a greater output for a given level of inputs. Clearly, war itself is costly—not only with respect to current spending, but also in long term costs such as budget deficits, worn-out equipment, and veterans support. The seemingly exorbitant salaries paid to contractors in Iraq—reportedly as high as \$90,000 per year to drive a truck—have led many critics of government outsourcing to question the true cost effectiveness of using contractors instead of military personnel. While media observations often ignore the true cost of military personnel (who receive tax-free benefits like healthcare, housing, education and retirement pensions), one should not immediately assume that using contractors saves money. By the same token, contracting is not always analogous to so-called “war-profiteering.” In this regard, the relevant alternatives to military outsourcing must also be considered.

As an important qualifier to this section, it should be noted that the majority of current war-related contracting information is neither publicly available nor easily obtained. The Center for Public Integrity, a self-proclaimed “nonprofit, nonpartisan organization devoted toward investigative journalism in the public interest,” has obtained a range of defense contracts through Freedom of Information Act requests.¹¹⁰ In

¹¹⁰ See “Windfalls of War: U.S. Contractors in Afghanistan and Iraq” in *Center for Public Integrity* [database on-line] (Washington, D.C., 2003); available from <http://www.www.publicintegrity.org/wow/resources.aspx?act=resources> (accessed October 2006).

addition, key insights into the current contracting process and relevant audits were obtained through several GAO and CBO reports. Relative costs are highly dependent on the circumstances and one must do more than simply compare salaries in order to determine comparative cost. While a comprehensive conclusion relating to the overall cost effectiveness of contractors on the battlefield is difficult to make, this analysis outlines some of the key factors necessary to base such a comparison.

B. ARE CONTRACTORS MORE COST EFFECTIVE?

The most powerful argument for shifting roles from public sector establishments to the private sector is that doing so will achieve cost savings. Equipping a large standing force is not only costly, but also takes a considerable amount of time. In the United States, for example, there is already a certain amount of resource and industrial capacity subsidized as surge capacity, and there is also a large force of reserve manpower paid to train periodically that is available upon emergencies. Although not formally placed in the same category as the Reserves or National Guard, private military contractors have become an essential part of this surge capacity. Based on their roles in the past two decades, it is clear that the military cannot go to into battle without them. Recall that there are about 132,000 U.S. military personnel deployed to Iraq and about 15,000 deployed to Afghanistan. Estimates of the number of private military contractors in Iraq have varied, mostly due to the overall lack of transparency within the industry, however many place the number at around 20,000 to 25,000, while some estimates exceed 40,000. While the actual numbers could vary, the analysis that follows assumes a total force of 150,000 military troops and 30,000 private contractors—representing about 17 percent of the combined force.

Perhaps the greatest strength of the PMCs is the inherent flexibility they offer in the form of surge support. Most of the time, forces train while weapons and equipment are in place and idle, essentially waiting for contingency. In theory, contracted firms do not need a large permanent staff and when a job ends, they can quickly reduce much of their workforce. Simply put, that is the essence of a bilateral contract—a prospective contractor will agree, for a price, to provide a service for a limited amount of time. While

contractors are hired and paid only if and when they are needed, military personnel are usually employed on a permanent basis and spend most of their time training to keep their skills current.

Such flexibility means contractors might be able to deploy to the wartime theater more rapidly than could support units from the reserve component, which contain two thirds of the Army's logistics personnel.¹¹¹ The contractor may be able to respond more rapidly because the process of activating reserve component units is time-consuming. In addition, military units generally transport their own equipment to the wartime theater, often via strategic sealift ships, whereas the contractor may be able to purchase much of the required equipment (such as trucks) in the theater itself or in adjoining countries. During Operation Desert Shield (1990-1991), reserve component units that were activated to support active component combat forces did not arrive in-theater until about 200 days after the operation began. Response times improved during Operation Iraqi Freedom: the average lag between activation of reserve-component units and their arrival in-theater was 158 days for full battalions and about 60 days for smaller detachments. In contrast, the LOGCAP contract requires that performance begin as early as 15 days after the Army notifies the contractor to proceed with a particular task order.¹¹²

In addition to the inherent flexibility they offer, private companies do not bear the same up-front fixed investment costs in obtaining their human capital. Many of the contractors have had previous military training and service provided at the taxpayer's expense. In turn, some argue the contractors unfairly profit from the taxpayer's investment in military training when they hire previously state-sponsored forces. This brings forward a contentious point: whereas a state's military might invest substantial resources to recruit, train, and retain each individual soldier, PMCs can obtain the exact same services from a former soldier on the open market and yet incur none of the same fixed costs. Singer argues that "the fact that costs of training have already been borne by state institutions means that these costs are borne elsewhere in society."¹¹³ These

¹¹¹ U.S. Congressional Budget Office, *Logistics Support for Deployed Military Forces*, xi.

¹¹² Ibid.

¹¹³ Singer, *Corporate Warriors*, 74.

concerns, however, are overstated. In reality, the costs of training a service member are sunk costs, and should not bear any relevance whatsoever to the military's decision whether to contract for the services of that (now former) service member once he is employed by a private firm. Because the sunk cost of training is not recoverable, the relevant comparison is the price of an individual trained by the military (and still under service obligation) versus the price of the outside option.

At the same time, the cost of human capital investment for a PMC is *not* negligible because, although they do not do the training themselves, they will have to pay for the military training that its employees have already received in the form of higher salaries. Even though the contractor will not need to devote resources (time and money) to train employees, it is necessary to pay a wage that fully incorporates the value of the training. In other words, the PMC avoids the *fixed* costs of training that the military must incur, but must pay a higher *variable* cost for the more valuable human resource that the military has created. Consequently, this raises questions as to the contractor's true comparative advantage in obtaining labor.¹¹⁴

There are important caveats. Although contracting out may be efficient for some functions, it may be costly or inefficient for other functions. In particular, functions for which there are extensive costs involved in setting up, monitoring, and enforcing contracts could make outsourcing a poor option. Critics of outsourcing also point to the inflexibility of contracts that require military commanders to issue change orders to the contract for even minor shifts in tasks. Avant notes that the more the U.S. insists that contractors do exactly what the military does, the more it limits their flexibility.¹¹⁵ Without such flexibility, the use of contractors can actually increase costs.

¹¹⁴ The degree to which the PMC must pay higher salaries is dependent upon the level of competition for the services of former military employees. Only if the PMC is a monopsonist in the market for military trained individuals can it expect to pay much less than the full value of the training. Clearly, there will always be at least one other buyer the services of such individuals – the military itself. Note that this means that growth in the PMC industry and/or the number of PMC firms will force contractors to pay higher salaries, thus diminishing any comparative advantage in obtaining labor. A shrinking or consolidating PMC industry, on the other hand, would have the opposite effect.

¹¹⁵ Avant, "The Privatization of Security and Change in the Control of Force," 155.

C. A FRAMEWORK FOR COST COMPARISON

1. Introduction

In many cases, there are difficulties in comparing costs and benefits. The traditional cost benefit analysis, for example, emphasizes making difficult tradeoffs between monetary and non-monetary values. In contrast, cost effectiveness analysis aims to provide a way to measure programs with the same or similar benefits and ask which produces those benefits at the least cost. Two scenarios that warrant evaluation of cost effectiveness include when (a) costs of alternative projects are identical and benefits need to be compared, or (b) when benefits are identical and only costs need to be compared.¹¹⁶ If we revisit the assumption that the military exists to serve certain, predetermined roles (projecting force, defending the homeland, or humanitarian assistance), then the relevant comparison is simply between the use of a contractor or military troops to achieve the same goal. In other words, simply consider the cost of a contractor providing security versus the cost of an active duty soldier doing the same job. Assume that, in this case, legal considerations, ethical ramifications, and potential risks inherent in their use are secondary considerations in this illustration or are equal across alternatives.

2. Estimating the Costs of Military Personnel

Arguably, people represent the military's greatest asset. Without their hard work and heroism, discipline and personal courage, even the finest technologies cannot defend us. By the same token, they are also relatively expensive assets. In FY2007, DoD will spend nearly \$110 billion on military personnel, or about one quarter of its \$489 billion discretionary budget authority.¹¹⁷ Commensurate with the structure of an all-volunteer military force, DoD must offer a compensation package that is competitive with those in the civilian sector and that adequately rewards service members for the risks and rigors of military life. Hartley points out that an all-volunteer force is costly to recruit, train, and retain, since military personnel require salaries which are higher than the civilian sector

¹¹⁶ Stoker and Zeckhauser, *A Primer for Policy Analysis*, 153-154.

¹¹⁷ See "Budget of the United States Government" in *GPO Access* [database on-line] (Washington, D.C., 2006); available from. <http://www.gpoaccess.gov/usbudget/fy07/pdf/budget/defense.pdf> (accessed November 2006). Note that the Operations and Maintenance account is the largest component of the budget at \$152 billion. As a further comparison, DoD's budget for Procurement is \$84 billion; Research, Development, Test and Evaluation is \$73 billion; and Military Construction is \$12.6 billion.

to persuade them to accept the disadvantages of military employment.¹¹⁸ Thus, positive compensating wage differentials exist to provide an incentive to do dangerous work and reward workers who accept such jobs by compensating them more than their counterparts.

Within the previously outlined TCE framework, the importance of relationship-specific investments is emphasized for *both* the government and the service member. From the government's perspective, equipping and training its force represents a substantial relationship-specific investment—each soldier represents tens of thousands of dollars. More importantly, military-specific training has little value in alternative uses. DoD is able to allay some of this risk by requiring troops to incur an additional service commitment for specialized training and offering an attractive salary and incentive package. The military is willing to make relationship-specific investments in its troops not only because they are under long-term contracts, but also because the deferred benefit compensation plan creates additional incentives for the service members to stay in the military for a longer term. At the same time, the service member is developing human capital that may be of little value to outside employers, and thus the service member is making a relationship-specific investment of his time (and the value of outside opportunities) during his years in the military. Long-term military employment contracts provide security to both sides.

The true cost of an active duty soldier is not easily ascertainable and largely depends on the circumstance. For example, a typical corporal might *earn* only \$25,000 on an annual basis. From a practical standpoint, however, this grossly underestimates the true cost of a service member. The Congressional Budget Office estimated that in 2002, the *average* active-duty service member received a compensation package costing about \$99,000.¹¹⁹ This was broken out further by cash compensation and non-cash benefits. Of particular note is that non-cash compensation represents nearly 60 percent, or \$56,000 of the military pay package. This includes the accrued costs of retirement pensions and

¹¹⁸ Hartley, "The Economics of Military Outsourcing," 199.

other deferred benefits that service members receive after they leave active duty, such as retiree health care and veterans' benefits. The figure also reflects 12 percent for installation benefits, to include subsidized in-kind goods and services such as commissaries, family housing, and child care. In contrast, cash compensation, including basic pay, allowances for housing and subsistence, special pay and bonuses, comprises the other 40 percent, or an average of \$43,000.¹²⁰

Secretary Rumsfeld, in March 2006 testimony relating to Iraq and Afghanistan Supplemental funding, estimated an average yearly cost of \$90,000 to sustain a service member in-theater. Other analysts have frequently used the proxy "annual operational cost per soldier," whereby the total war-related operational costs and obligations are divided by the number of deployed troops.¹²¹ Depending on annual obligations and troops levels, this measure yields an operational cost per troop ranging from \$257,000 to \$463,000.¹²² This cost clearly overstates the *true* costs per soldier, as operations and support costs are primarily driven by military equipment and other major construction efforts.

3. Estimating the Costs of Contractors

Recent attention has been devoted to the "sticker shock" associated with the employment of military contractors. Stories of exorbitant salaries paid to contractors have fueled skepticism as to their true cost effectiveness. Certain aspects of the labor market imply that when compared to the military's recruiting process, market forces will influence to a greater degree the PMC's supply and demand for labor, as well as the market clearing wage for a specific type of job. PMCs must compete with each other and

¹¹⁹ Carla Tighe Murray, *Military Compensation: Balancing Cash and Noncash Benefits*, [report on-line] (Congressional Budget Office, January 2004): 2, available from <http://www.cbo.gov/ftpdocs/49xx/doc4978/01-16-DoDCompensation.pdf> (accessed October 2006).

¹²⁰ Ibid. Note that it is important to recognize that the above costs are only "compensation" and "benefits" to the service member, not costs to the military. Specifically excluded are training costs.

¹²¹ Secretary Rumsfeld in hearing before Senate Appropriations Committee, *Supplemental Budget Request for Operations in Iraq and Afghanistan*, 9 March 2006; qtd in Amy Belasco, *The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11* [report on-line] (Congressional Research Service, September 2006): 31, available from <http://www.fas.org/sgp/crs/natsec/RL33110.pdf> (accessed October 2006).

¹²² Belasco, *The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11*, 30.

also with the “inside alternative” offered by military units. The private military industry is generally not capital intensive, and one of the key aspects is access to qualified human capital. Labor input is *relatively* cheap and widely available, both in international and local markets. Specifically, contractor employees may be U.S. citizens, host country nationals, or third country nationals, depending on the type of service being provided under the contract.¹²³ Contracts to support complex weapons systems, for example, usually require U.S. citizens, while contractors that provide food, housing, janitorial, or construction services frequently hire local nationals or third country nationals. Private security companies often rely on ex-military personnel from Western armies. Military consulting companies primarily select their employees from the ranks of retired military personnel who bring “useful knowledge and a sturdy willingness to endure risk.”¹²⁴ As a result, some companies can provide specialized forces in a shorter time than the military.

As with the military, wages paid by private companies will also have to reflect the harsh working conditions and dangerous environments an employee will likely encounter. Contractor employees, too, will demand a risk premium in their compensation. Compared with the regulations under which the DoD employs military personnel, the regulations under which contractors work generally give them more flexibility in setting pay and benefits and in hiring and firing workers. Because contractors need not make long-term commitments to their employees, they are in a better position to “surge” to meet a short-term demand for workers and then rapidly downsize later. In contrast to the military, contractors are not bound by military or civil service pay tables or by legislative caps on various types of special pay and allowances, although some contractors may offer limited benefits. Furthermore, this allows contractors and their employers a greater opportunity for a performance-based pay scheme. Contractors can also recruit internationally, which means they have access to a broader labor force. Thus, the labor supply for a contractor is relatively more *elastic* when compared to the

¹²³ A host country national is an employee of a contractor who is a citizen of the country where the work is being performed; a third country national is an employee who is neither of citizen of the United States or the host country.

¹²⁴ Doug Brooks, “A New Twist on a Long Military Tradition,” *Boston Globe*, 19 October 2003.

military's labor supply.¹²⁵ As we will examine, this holds key implications in a comparison of the relative costs of active forces versus contractors.

The cost of a PMC employee has been the subject of widespread scrutiny, with some security guards earning \$400 to \$600 per day and with members of some elite units rumored to clear nearly \$1,000 per day. A typical contractor in Iraq, for example, would expect to gross \$135,000 working 270 days per year. Doug Brooks, president of the International Peace Operations Association, emphasizes that \$700 is closer to the high end of the wages and argues that, in reality, most personnel earn much less.¹²⁶ In a recent report to Congress, GAO estimated that security providers earn between \$12,000 and \$33,000 per month, depending on whether they are guarding high ranking government officials, guarding vehicle convoys, or providing building security. It is also important to contrast the profile of cash and non-cash benefits. Whereas nearly 60 percent of an active duty soldier's salary is in the form of deferred, non-cash benefits, a private contractor will not need to provide a deferred form of compensation for its employees. Thus, the contractor will compensate its employees primarily with cash. Cash pay (versus in-kind benefits) is also more efficient in an economic sense because cash provides employees maximum discretion in how they spend their compensation—it gives employees more control over spending choices.¹²⁷

¹²⁵ The price elasticity of supply measures the relationship between change in quantity supplied and a change in price. It is formally defined as the percentage change in quantity supplied divided by the change in price, holding all other factors constant. Note that the size of the market does not always indicate the relative elasticity of the market. There could be a very small (large) supply of individuals with a particular skill set and yet that supply could still be very elastic (inelastic). Also, the nature of the labor supply for PMCs can vary dramatically from low-skilled positions (truck drivers) to high-skilled positions (private security).

¹²⁶ Doug Brooks, "Making A Killing in Iraq?" [web-page] (International Peace Operations Association, September 2004); available from <http://ipoaonline.org> (accessed November 2006).

¹²⁷ See Murray, "Military Compensation: Balancing Cash and Noncash Benefits" and Cindy Williams, "Paying Tomorrow's Military," *Regulation* 29, no. 2 (Summer 2006): 26- 31. Studies have shown that the cost to the military of providing these deferred benefits is greater than the value of these deferred benefits as perceived by the service members. In other words, the military could take 90% of the money it is investing for deferred benefits each year, give this money instead as immediate cash benefits to its service members, and both the service members and the military would both be better off (a Pareto efficient improvement). The military would save money and the average service member would at least feel as if he is receiving higher compensation for his services (though a net present value calculation would show otherwise). This ignores the retention effects of the deferred benefits, however, which may have efficiency implications in terms of encouraging valuable relationship-specific investments.

At the same time, contractors must also pay for insurance. Compared to military personnel, the marginal costs of PMCs are more affected by insurance costs because they are insuring only for war time.¹²⁸ In particular, defense contractors and sub-contractors are federally mandated to buy accident and health insurance for all employees, including foreign nationals. As the external environment has grown more uncertain, contractors are spending a greater proportion of their operating costs on insurance. While insurance rates for military troops are set, PMCs must pay a premium when they deploy personnel to risky areas. As the Iraqi context looked more dangerous than expected at the beginning of the war, insurance rates soared and those costs were then passed on to the government. In some cases, insurance rates have doubled. From 2002 to 2004, for example, the annual premium to insure around 100 staff doubled from \$8,000 per worker to \$16,000 per worker, for an individual policy worth \$200,000.¹²⁹ Assuming a security contractor was at the highest end of the scale earning around \$25,000 per month, the new insurance premium represents approximately five percent of gross wages, an increase of about 2.5 percentage points.

4. Summary

Focusing exclusively on financial (rather than ethical or legal) considerations, utilizing contractors is indeed a cost-effective use of tax dollars. The strength of contractors lies in their ability to provide specialized services more rapidly and for a shorter period of time than the military could do with an equivalent increase in the overall size of its force. Thus, the structure of a PMC can provide a clear advantage over the military by offering flexibility and speed. Because contractors need not make long-term commitments to their employees, they are in a better position to “surge” to meet a short-term demand for workers and then rapidly downsize later. Even though some of this advantage could be countered by the use of part-time reserve forces or elite Special

¹²⁸ For the military members, although these insurance rates may be set in advance they would likely be set in such a way as to be relatively expensive during peace times and relatively cheap during war time, but priced to generate some profit for the insurer (or to exactly cover costs if the insurer is the government).

¹²⁹ Bruton, F. Brinley, “Iraq Security Eating Chunks of Contractors’ costs,” [web-page] (Forbes.com, 13 April 2004); available from <http://www.forbes.com/markets/newswire/2004/04/13/rtr1330279.html> (accessed November 2006).

Forces units, it would only be in the exceptional circumstance of a near permanent large-scale deployment that contractor support would not be cheaper in the long term than the military alternative.

The wages of an active duty soldier versus a comparatively trained private contractor reflect several important differences. First, a service member's salary is weighted more heavily towards deferred, non-cash compensation, whereas a PMC will provide a salary comprised entirely of cash. Next, contractors can recruit internationally, which means they have access to a broader labor force. Similarly, companies often employ foreign nationals or third-country nationals for a diverse number of tasks. As a result, comparisons of a typical active duty troop versus a private contractor may not be entirely valid. The fact that PMCs need not pay their employees retirement benefits is a primary issue in the cost effectiveness debate and provides the contractor a comparative advantage in obtaining labor. At the same time, it should be noted that, like free trade, the decision to accept a certain type of work is based on voluntary exchange. Although a contractor's cash pay is economically more efficient than the military's non-cash compensation, the relevant comparison is still the price of an individual trained by the military versus the price of the outside option. Even though the PMC will not have to devote the same resources as the government to train its employees, it will still need to pay a wage that fully reflects the value of training and experience that might have been obtained from a state-sponsored military organization.

D. ALTERNATIVES AND OPPORTUNITY COSTS

1. Overview

It remains clear that the unprecedented and widespread employment of military contractors will continue to have far reaching effects on how the military organizes, equips, and executes missions. To reiterate, the military's make-or-buy decision is a public procurement issue. Thus, in simplest terms, Congress and DoD *should* provide the same level of capability at the least cost. Yet, as we continue to hear frequent criticisms about the Pentagon's so-called "shadow force" or "hired guns," noticeably absent are viewpoints highlighting the relevant alternatives. Clearly, military outsourcing can provide substantial opportunities for cost savings, but it is not the only option available

for efficiency improvements. For example, if contractors can purchase trucks in theater, it is not clear why military units cannot do the same. Moreover, if such in-theater purchasing is preferable, then any of the trucks that were previously described as sitting “idle, essentially waiting for contingency” are wasted resources. If it is assumed that the military has the appropriate equipment at home, then we must also consider the opportunity cost of owning such equipment in the event that either a contractor *or* the military unit itself instead purchases equipment in-theater. Moreover, it may also be possible to rent trucks or equipment in theater until military-owned equipment arrives. This would seem to be an option available to either a contractor or a military unit.

The military could reduce the cost of deploying soldiers by extending tours of duty. Such a proposal would face opposition, as it would likely reduce troops’ quality of life and morale. This, in turn, would have long-term repercussions on recruiting and retention. Alternatively, the services could rely more on their “traditional” surge support of National Guard and Reserve forces. It should be noted that, on an incremental basis, however, deploying reserve forces is comparatively more expensive than deploying existing active forces since DoD must pay reservists special combat pays as well as pay them full-time rather than part-time salaries. For active duty troops, the only additional war-related costs are special combat pays. More importantly, increasing reliance on Reserve forces would likely face fierce political opposition, especially considering the unexpected and unprecedented degree of Reserve deployments over the past three years.¹³⁰ In addition, high deployment rates indicate that Army and Marine Corps troops are also stretched thin. This raises a critical question—what is the military’s true alternative to using contracted support? Holding all other factors constant, the military would weigh the costs of increasing troop strength versus using contractors. This suggests that the relevant alternative is *more* active duty troops, not more deployments of the active duty troops already in place. Increasing the size of active forces to take these additional roles would be costly, both in funding and time.

¹³⁰ Associated Press, “More National Guard Units may get second tours in Iraq,” [web-page] (CNN.com, 11 November 2006); available from <http://www.cnn.com/2006/US/11/11/iraq.national.guard.ap/index.html> (accessed November 2006).

2. Increasing the Size of the Military

In researching the continued viability of the military's all-volunteer force, John Warner and Beth Asch estimated the elasticity of enlistment supply. Their research showed retention was very responsive to pay, citing that a "substantial but affordable pay increase would attract the necessary manpower."¹³¹ Several additional studies confirmed the elasticity of the initial enlistment supply to exceed 1.0.¹³² Assuming the supply curve for first-term soldiers is elastic, we illustrate the effects of a larger military force. Take, for example, an initial force of 100,000 volunteers, each with an average (cash) salary of \$50,000. Initially, this represents a total cost of \$5 billion. Next, imagine DoD wants to increase the size of the force by five percent, to 105,000 troops. Assuming an elasticity of labor supply of 1.0, it will also need to raise wages by five percent, to \$52,500. Total compensation increases to about \$5.5 billion, representing an increase of \$512.5 million, or ten percent. Note, however, what happens to the average cost per additional service member. To gain an *additional* 5,000 volunteers, DoD must now increase its total labor cost by an average of \$102,500 for each new volunteer gained – more than twice the initial \$50,000 per soldier! The extra \$2,500 paid to each soldier provides an additional economic rent, or excess return, to each of the initial 50,000 soldiers who willingly volunteered before the increase.¹³³ This example illustrates that increasing the size of the all-volunteer force is extremely costly for even a modest increase of 5,000 volunteers. Recall that, in the wake of increased ops-tempo, the Pentagon temporarily added 30,000 troops to the Army's FY04 authorized active duty end strength. At the time, Army

¹³¹ John Warner and Beth Asch, "The Record and Prospect of the All-Volunteer Military in the United States," *Journal of Economic Perspectives* 15 (2): 178.

¹³² Ibid.

¹³³ See Jack Hirshleifer and David Hirshleifer, *Price Theory and Applications*, 6th ed. (Upper Saddle River: Prentice-Hall, 1992), 380-81. Note that the presence of economic rents does not necessarily mean that the outcome is inefficient. Using the traditional supply and demand analysis, only the marginal supplier and/or the marginal buyer receives zero economic surplus at the intersection of supply and demand. All other buyers and sellers receive positive surplus, and yet the outcome is efficient.

General Peter Schoomaker estimated that those new troops would cost \$1.2 billion per 10,000-soldier division.¹³⁴ Furthermore, the Army also estimated that the increase would take up to four years.¹³⁵

3. The Sponsored Reserve System

The sponsored reserve concept is being studied and used by military services in other countries, including Great Britain, Australia, and Canada. The term “sponsored reserve” refers to a provision in a defense contract that requires the contractor to have a specified number of employees participate as military reservists. Under the arrangement, these reservists may be mobilized and deployed to contingency operations as uniformed members, rather than civilian contractors. Essentially, the system allows contractors performing peacetime operations to become activated reservists when they deploy overseas.¹³⁶

The sponsored reserve concept was recently highlighted in CBO’s *2005 Budget Options* as a possibility to achieve near-term discretionary savings by reducing the number of active-duty personnel performing logistics functions, installation management, and physical security functions by 20 percent.¹³⁷ Under the proposal, 20,000 active-duty personnel in those occupations would be replaced with the sponsored reservists over a period of four years.

Under such a system, a contractor would essentially perform the same job but would act as a member of the military when deployed. This would potentially bridge the gap between wholly privatized functions performed by contractors and functions performed by the military. It also offers the advantage that deployed contractors would

¹³⁴ George Cahlink, “Hell No, We Won’t Grow,” [web-page] (GovExec.com, 16 March 2004); available from <http://www.govexec.com/features/0304/0304newsanalysis3.htm> (accessed November 2006).

¹³⁵ Jack Spencer, “Large Increases in Manpower Not Needed at This Time,” [web-page] (Heritage Foundation, May, 2004); available from <http://www.heritage.org/Research/NationalSecurity/bg1762.cfm> (accessed November 2006).

¹³⁶ U.S. Congressional Budget Office, *Logistics Support for Deployed Military Forces*, 60.

¹³⁷ U.S. Congressional Budget Office, *CBO Budget Options 050-33: Substitute Sponsored Reservists for Active-Duty Military* [report on-line] (Congressional Budget Office, February 2005); available from <http://www.cbo.gov/showdoc.cfm?index=6075&sequence=0> (accessed November 2006).

fall under the military chain of command—ensuring better command and control and afford protections of military status. Indeed, it is the lack of such regulations that has helped fuel widespread scrutiny of the entire industry. Legally, the standing of private military agents in international law is problematic, and inconsistencies among statutes have become common.¹³⁸ From DoD’s perspective, the advantage is the ability to better deal with force reductions and privatization challenges. It also offers a way to deal with recruiting, training, and retention challenges.

At the same time, implementing a sponsored reserve system raises some practical concerns. Consider that it may require that additional compensation be paid to civilian contractor employees in order to compel them to military service. Moreover, what would prevent the employee from simply quitting and refusing to deploy? After all, he/she is not bound by the Uniformed Code of Military Justice (UCMJ). In order to get such an employee to agree to be bound by the UCMJ, he/she would have to be paid extra compensation while still a civilian employee to offset the risk of deployment and resulting dislocation. This additional cost is likely to be very similar to the part-time pay given to reservists currently, especially if these sponsored reservists are expected to train as well. Moreover, employees of peacetime contractors (for example, a weapons system supplier or maintenance provider) might not have the relevant skill sets to be deployed during war time without additional special training. While employees of certain PMCs (such as those firms which specialize in armed security services) would clearly have valuable combat skills, such PMCs generally have little role during peacetime, and therefore would not be subject to such a sponsored reserve system. In fact, many of the PMCs that have prominent roles now did not even exist before the current Iraq war, and certainly some of these PMCs are unlikely to have a prominent role (or any role at all) if the level of combat operations in the war on terror diminishes significantly.

¹³⁸ See Blizzard, “Increasing Reliance on Contractors on the Battlefield,” 10. Civilians who take part in hostilities may be regarded as combatants and are subject to attack and/or injury incidental to attack on military objectives. Taking part in hostilities has not been clearly defined in the law of war but generally is not regarded as limited to civilians who engage in actual fighting. Since civilians augment the Army in areas in which technical expertise is not available or is in short supply, they, in effect, become substitutes for military personnel who would have been combatants.

E. SUMMARY

Since September 2001, Congress has appropriated nearly \$430 billion to DoD and other U.S. agencies for military operations and reconstruction and stabilization activities supporting GWOT. DoD has received approximately \$386 billion to fund military operations, while nearly \$44 billion was appropriated to agencies such as the U.S. Agency for International Development (USAID) and the State Department for reconstruction and stabilization efforts in Iraq (\$34.5 billion) and Afghanistan (\$9 billion).¹³⁹ GAO has produced three major reports on contractor support since mid-2003. The GAO assessment of the U.S. military's use of contractors globally is generally positive, considering the magnitude and importance of services provided to forces. More specifically, contractors and military commanders have worked together to meet military commanders' needs, sometimes in very hazardous or difficult circumstances. For example, the LOGCAP contract is providing logistics support to more than 165,000 soldiers and civilians under difficult security circumstances in Iraq, Afghanistan, Kuwait, and Djibouti, and DoD is generally pleased with the service the contractor is providing.¹⁴⁰

Many high-profile cases of alleged over-billing and under-delivery have emerged in Iraq but, in dollar terms, they typically represent only a small proportion of contract activity. For example, a Defense Contracting Audit Agency (DCAA) audit report issued between February of 2003 and February of 2006 identified \$2.1 billion in *questioned* costs and \$1.4 billion in *unsupported* costs on Iraqi contracts.¹⁴¹ Even when combined, these costs, though they may appear large, represent only about one percent of total contract activity over the same time period. Specifically, \$311 billion was allocated to support these reconstruction and stabilization efforts between FY 2003 and FY 2006.

¹³⁹ U.S. Government Accountability Office, *Global War on Terrorism: Observations on Funding, Costs, and Future Commitments*, 3.

¹⁴⁰ U.S. Government Accountability Office, *Contract Management: Contracting for Iraq Reconstruction and for Global Logistics Support*, 7.

¹⁴¹ See U.S. Government Accountability Office, *Iraq Contract Costs: DoD Consideration of Defense Contracting Audit Agency's Findings*. GAO-06-1132 (Washington, D.C., 2006); 2. DCAA defines "questioned" costs as costs that are unacceptable for negotiating reasonable contract prices, and "unsupported" costs as costs for which the contractor has not provided sufficient documentation.

Furthermore, many of these questionable costs are indeed valid, however they may take several months to resolve or clarify. Some of the more notable criticisms include allegations that Halliburton has used political influence to gain billion-dollar, multi-year contracts (basically a form of rent-seeking, as highlighted in Chapter III). In 2005, PBS correspondent Martin Smith reported that an additional high-profile audit uncovered that KBR billed the government \$1.8 billion in unsupported costs.¹⁴² While the issue has yet to be resolved, it should be noted that, as of 2005, the estimated value of the associated LOGCAP contract was \$15 billion.¹⁴³ Generally speaking, these DoD audits commonly cited inadequate planning and oversight as major weaknesses. The GAO judged that contractor employment in Iraq had suffered from a lack of early planning and contractor involvement, poor oversight of service delivery and a failure to review contracts to ensure value for money. In large measure, these problems can be traced to inadequate numbers of contracting personnel charged with oversight of several multi-billion dollar construction efforts. According to one report, the U.S. contract management office in Baghdad employed a mere fourteen people to manage more than \$18 billion in support and reconstruction projects. This helps explain publicized disagreements between the customer and vendor in Iraq.

While a statement relating to the overall effectiveness of military contractors is difficult to make, it does appear that they have been able to fulfill their contractual obligations. Although many challenges relating to oversight and legal status remain, it is clear that the military is getting what it needs. In other words, these contractors are generally effective in their duties. At the same time, the PMC's ability to rapidly "surge" offers the military a key advantage. Specifically, the PMCs primary strength lies in their ability to provide specialized employees in a short period of time. While some question the disparity in the wages of military forces versus private contractors, these arguments typically ignore (1) the composition of cash vs. non-cash compensation, (2) the advanced and specialized skills of a PMC's labor force, and (3) the need for the PMC to pay a wage

¹⁴² PBS Frontline, "Private Warriors: Frequently Asked Questions."

¹⁴³ U.S. Government Accountability Office, *Defense Logistics: High Level DoD Coordination is Needed to Further Improve the Management of the Army's LOGCAP Contract*. GAO-05-328 (Washington, D.C., 2005); 1.

which fully reflects the value of training and experience. While PMCs often have a wider pool from which to select their employees, this does not in itself establish a comparative advantage in obtaining a well-qualified labor force. The relevant comparison is still the price of an individual trained by the military versus the price of a comparatively qualified outside option. Despite the fact that the PMC will not have to devote the same resources as the government to train its employees, it will still need to pay a wage that fully reflects the value of training and experience that might have been obtained from a state-sponsored military organization.

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

A. SUMMARY

Defense spending is a primarily a question of resource allocation and, on a fundamental level, military outsourcing is akin to a company's make-or-buy decision. Within the Pentagon, a renewed emphasis on market-based sourcing by the current Administration has nurtured a multi-billion dollar services industry and created an unprecedented role for private contractors. In large part, these outsourcing efforts have been aimed at attaining cost savings and streamlining government. At the same time, it should be emphasized that current commitments involved with ongoing GWOT operations represent a unique aspect of government contracting.

Although PMCs have filled many of the military's traditionally in-house roles including logistical support and weapons system maintenance, their current roles have been expanded to cover a greater number of diverse tasks. Generally speaking, these are functions which the military does not have the capacity or capability to provide in-house. As a result, the majority of the current contingency-related contracts were not associated with a "textbook" A-76 cost study. Rather, the reconstruction effort in Iraq is complex, costly, and challenging, in part due to an urgent need to begin and execute reconstruction projects in an unstable security environment. Thus, the difficulties associated with contingency contracting are often incongruent with the traditional assumptions and guidelines regarding government outsourcing.

Within a society, a common justification for government intervention is to provide public goods. Within this framework, the provision of national defense is widely considered a public good. But an important distinction economists make is between government funding of the public good, something with which few economists would disagree, and direct government production of the public good. The government should not be the sole provider of a good or service unless there is a compelling reason to believe that the private sector will fail in that role. Thus, provision of a public good can

be delivered in a way that harnesses the benefits of the free market. The case for privatization is strong if private sector production of a given level of output is more efficient and more innovative.

Within the military, outsourcing for traditionally in-house functions is rarely that clear cut, and Transaction Cost Economics can offer crucial additional insights to the make-or-buy decision. In this analysis, key transaction costs include source selection, contract management, performance monitoring, and relationship-specific investments. Contracting for roles near the battlefield, for example, typically involves a non-standardized service and must take place in a bilateral contract setting, suggesting a high degree of transactional complexity.

Increasing reliance on PMCs during conflict also raises questions pertaining to the sovereign use of force. Whereas private firms offer efficiency incentives which are maximized in competitive markets, public agencies, on the other hand, are better suited to provide “inherently governmental” or “sovereign” tasks. Sovereign tasks are characterized by an additional attribute of probity. Furthermore, agency theory suggests an inherent difference between profit-seeking contractors and civil servants. The military commander will want the contractor to perform in a manner that will not hinder mission success. In turn, tension will exist between a state-sponsored military and a PMC who is primarily driven by considerations of profit maximization. Yet, the distinction between privately and publicly provided tasks is clearly open for interpretation and ultimately depends on the nature of the task to be provided.

In some tasks, such as military leadership or tactical aviation, the characteristic of probity will remain of primary importance. At the same time, there remain many services within government that can be provided by thriving, competitive markets—even near the battlefield—such as food services, janitorial duties, and reconstruction efforts. More of a gray area exists, however, when contracting for private security, weapons support, and convoy duties. Ultimately, contracting for these functions will require a tradeoff between the risks to mission accomplishment and the cost savings associated with private provision.

In evaluating the cost effectiveness of private contractors, two issues arise. The first is the challenge in accurately calculating the public sector's cost and the resulting savings if the function were to be privatized. Such cost comparisons between public and private provision also must control for additional variables, such as the scenarios and environments in which contractors are employed. In other words, contracting for vehicle maintenance services is much different than contracting security duties.

The second important issue is the value of improved results. In other words, the "cost" argument should not be isolated—a complete analysis must also address the "effectiveness" of private contractors. As Schooner notes, the cost-savings argument for outsourcing is often not as compelling as the potential improvement from quality of service or flexibility.¹⁴⁴ As previously highlighted, the ability of a PMC to provide the military with flexibility is a paramount consideration. Furthermore, the cost effectiveness of contractors will depend on several factors including the type of service provided, the length of time, and the number of competing suppliers. Without question, privatization and outsourcing can lead to sustained cost savings within the government.

There are, however, important caveats. Within the empirical framework of privatization and outsourcing, competition within markets is certainly an important precursor towards unleashing what Samuelson describes as the "tremendous vitality" of the free enterprise system.¹⁴⁵ Additionally, the importance of effective oversight is underscored. It would be unfair to accuse large reconstruction contractors, such as Parsons and Halliburton's KBR, of being "war profiteers" without also addressing problems with the government's oversight capability.

B. CONCLUSION

Privatization and outsourcing are vital components of a more efficient and cost-effective government. Efforts to cut "red tape" and streamline operations within government are lauded, and should certainly continue. There remain important limitations, however.

¹⁴⁴ Bianco and Anderson Forest, "Outsourcing War."

¹⁴⁵ Paul A. Samuelson, *Economics* (New York: McGraw Hill, 1948); qtd in Shleifer, "State Versus Private Ownership," 135.

An empirical view of outsourcing recognizes the importance of competition and oversight. At the same time, contracting for roles near the battlefield may not fit within the traditional outsourcing guidelines. Not only is the tactical environment characterized by uncertainty, complexity, and opportunism, but contracting for previously in-house functions also raises key questions about the sovereign use of force. There is little argument that a gray area exists between those tasks deemed inherently governmental and those that are eligible to contract out. Indeed, much of the current controversy is over those contractors who may redefine that boundary, like security guards, logistics providers, and weapons maintainers. Further, the traditional definition of “sovereign” suggests an inherent tradeoff between the transactional characteristic of probity and cost savings. Indeed, loyalty to the state and mission will remain important, but those considerations may be offset with the prospect of cost savings in a fiscally constrained environment.

More recently, the vilification of PMCs by the media and some scholars has centered on their true cost to the taxpayer. These cost-effectiveness arguments are frequently misleading and fail to address the advantages offered by a military contractor and/or the military’s alternative to using contracted support. As is the case in past military operations, private companies can offer some important advantages to the military. Contractors can afford DoD increased flexibility and capability that would otherwise be cost prohibitive to provide in-house.

The inherent strength of contractors is their ability to provide specialized services in a short amount of time. Because contractors need not make long-term commitments to their employees, they are in a better position to “surge” to meet a short-term demand for workers and then rapidly downsize later. The QDR, the DoD-equivalent to a long-term business strategy, emphasizes that the future military will have to be agile, responsive, and adaptive with our military capabilities.¹⁴⁶ In the past several years, DoD has focused on creating a lean, agile force designed to deploy quickly. To the extent that PMCs

¹⁴⁶ U.S. Department of Defense, *QDR Provides Vectors for Defense Transformation* [web-site] (Department of Defense, 2006); available from http://www.defenselink.mil/news/Jan2006/20060127_4033.html (accessed November 2006).

afford the government with improved service delivery and flexibility, contracting for services in a contingency environment is congruent with DoD's transformation efforts.

In addition, the military's alternatives to using contracted support remains an important consideration. A careful consideration of these alternatives demonstrates even more clearly that contractors are a cost effective use of tax dollars. In the short-term, expanding the size of the reserve forces is not feasible, nor is increasing deployments of those reservists. Furthermore, increasing active forces is costly, time consuming, and politically unpopular. In summary, using contractors on the battlefield is controversial for many reasons, but cost effectiveness should not remain the primary concern.

It is clear that the U.S. will continue to rely extensively on PMCs, in both wartime and peacetime, for the indefinite future. In turn, steps should be taken to better formalize their use across all services. Specifically, DoD uses contractors as part of the total force mix and recognizes the need to continue essential contractor services during crises, but it has not included them in operational and strategic planning. With an increasing number of contractors currently working in Iraq, perhaps it should reconsider. Finally, the utilization of "contractors on the battlefield" encompasses a host of contemporary topics. Using private contractors is controversial for several reasons including legal accountability, regulatory concerns, and ethical considerations. Ultimately, these legal and ethical ramifications often trump any cost concerns.

C. RECOMMENDATIONS FOR FURTHER STUDY

This research focused on some of the empirical issues related to outsourcing. Yet much more work remains in the cost-effectiveness area. In particular, a more quantitative analysis would address the utilization of contractors over a sustained period of time, using operations in present day Iraq and Afghanistan as a basis.

In addition, more research directed at the PMC's ability to "labor poach" highly qualified service members would provide policy recommendations on recruiting and retention methods. A 2005 GAO report addressed concerns that attrition had increased in the wake of increased opportunities with private security providers. Specifically, data

from the Defense Manpower Data Center show that military members in the affected specialties were leaving in the same proportions as before the September 11, 2001 terrorist attacks.¹⁴⁷

Nonetheless, data can only show trends in attrition rates, not explain why people are leaving the military or what they intend to do after leaving the military. Furthermore, attrition rates are also influenced by several other factors, including the attraction of a strong civilian economy, high operational tempo, and various quality of life concerns. Nonetheless, many service officials remain leery about competing against PMCs for keeping their best and brightest servicemen. During a November 2006 address to the Naval Postgraduate School, General Bryan Brown, Commander of U.S. Special Operations Command, expressed concern that lucrative salaries offered by private contractors continued to pose a challenge in recruiting and retaining some of the military's most elite Special Forces troops.

In the past decade, the defense industry has undergone extensive consolidation. While this has been more evident within the military equipment manufacturers, there are indications that similar mergers and acquisitions have been occurring among military service providers. Additional research should address these changing market structures, with particular emphasis on implications for industry competitiveness. Additionally, research could address a potential "dynamic endogeneity" problem: The government may actually reduce the competitiveness of a potential supplier industry when it awards contracts. Often, firms that do not win a particular government contract do not have sufficient alternative customers for their services, and therefore either go out of business or merge with the firm that did win the contract. Consequently, a previously competitive industry could, at a later date, become quite concentrated or even monopolized.

Finally, is there danger of the military becoming too dependent upon contractors? From both inside and outside of the military, military analysts have expressed concern about the long-term effects that their use will have. In particular, once certain functions are contracted out, it may be necessary that they continue to be provided for by the

¹⁴⁷ See U.S. Government Accountability Office, *Rebuilding Iraq: Actions Needed to Improve Use of Private Security Providers*.

private market indefinitely. As highlighted in Chapter III, personnel cost savings subsequent to competitive sourcing appear to be “real and long lasting.” However, this is clearly not always the case. Increasing reliance on private sector to handle certain functions has reduced or eliminated the military’s ability to meet certain requirements internally. Research into the long-term effects of military contracting provides an area for further research, with specific emphasis placed on the cost-effectiveness argument.

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